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Ontario

ENVIRONMENTAL ASSESSMENT BOARD

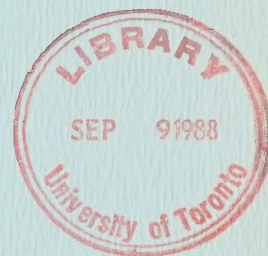
VOLUME: XXXVII

DATE: Wednesday, August 24th, 1988

BEFORE: M.I. JEFFERY, Q.C., Chairman

E. MARTEL, Member

A. KOVEN, Member



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER of an Order-in-Council
(O.C. 2449/87) authorizing the
Environmental Assessment Board to
administer a funding program, in
connection with the environmental
assessment hearing with respect to the
Timber Management Class
Environmental Assessment, and to
distribute funds to qualified
participants.

Hearing held at the Ramada Prince Arthur
Hotel, 17 North Cumberland St., Thunder
Bay, Ontario, on Wednesday, August 24th, 1988,
commencing at 9:30 a.m.

VOLUME XXXVII

BEFORE:

MR. MICHAEL I. JEFFERY, Q.C.	Chairman
MR. ELIE MARTEL	Member
MRS. ANNE KOVEN	Member

A P P E A R A N C E S

MR. V. FREIDIN, Q.C.)	MINISTRY OF NATURAL
MS. C. BLASTORAH)	RESOURCES
MS. K. MURPHY)	
MR. B. CAMPBELL)	MINISTRY OF ENVIRONMENT
MS. J. SEABORN)	
MR. R. TUER, Q.C.)	ONTARIO FOREST INDUSTRY
MR. R. COSMAN)	ASSOCIATION and ONTARIO
MS. E. CRONK)	LUMBER MANUFACTURERS'
MR. P.R. CASSIDY)	ASSOCIATION
MR. J. WILLIAMS, Q.C.	ONTARIO FEDERATION OF
	ANGLERS & HUNTERS
MR. D. HUNTER	NISHNAWBE-ASKI NATION
	and WINDIGO TRIBAL COUNCIL
MR. J.F. CASTRILLI)	
MS. M. SWENARCHUK)	FORESTS FOR TOMORROW
MR. R. LINDGREN)	
MR. P. SANFORD)	KIMBERLY-CLARK OF CANADA
MS. L. NICHOLLS)	LIMITED and SPRUCE FALLS
MR. D. WOOD)	POWER & PAPER COMPANY
MR. D. MacDONALD	ONTARIO FEDERATION OF
	LABOUR
MR. R. COTTON	BOISE CASCADE OF CANADA
	LTD.
MR. Y. GERVAIS)	ONTARIO TRAPPERS
MR. R. BARNES)	ASSOCIATION
MR. R. EDWARDS)	NORTHERN ONTARIO TOURIST
MR. B. McKERCHER)	OUTFITTERS ASSOCIATION
MR. L. GREENSPOON)	NORTHWATCH
MS. B. LLOYD)	

APPEARANCES: (Cont'd)

MR. J.W. ERICKSON, Q.C.) MR. B. BABCOCK)	RED LAKE-EAR FALLS JOINT MUNICIPAL COMMITTEE
MR. D. SCOTT) MR. J.S. TAYLOR)	NORTHWESTERN ONTARIO ASSOCIATED CHAMBERS OF COMMERCE
MR. J.W. HARBELL) MR. S.M. MAKUCH)	GREAT LAKES FOREST PRODUCTS
MR. J. EBBS	ONTARIO PROFESSIONAL FORESTERS ASSOCIATION
MR. D. KING	VENTURE TOURISM ASSOCIATION OF ONTARIO
MR. D. COLBORNE	GRAND COUNCIL TREATY #3
MR. R. REILLY	ONTARIO METIS & ABORIGINAL ASSOCIATION
MR. H. GRAHAM	CANADIAN INSTITUTE OF FORESTRY (CENTRAL ONTARIO SECTION)
MR. G.J. KINLIN	DEPARTMENT OF JUSTICE
MR. S.J. STEPINAC	MINISTRY OF NORTHERN DEVELOPMENT & MINES
MR. M. COATES	ONTARIO FORESTRY ASSOCIATION
MR. P. ODORIZZI	BEARDMORE-LAKE NIPIGON WATCHDOG SOCIETY
MR. R.L. AXFORD	CANADIAN ASSOCIATION OF SINGLE INDUSTRY TOWNS
MR. M.O. EDWARDS	FORT FRANCES CHAMBER OF COMMERCE
MR. P.D. McCUTCHEON	GEORGE NIXON

(iii)

APPEARANCES: (Cont'd)

MR. C. BRUNETTA

NORTHWESTERN ONTARIO
TOURISM ASSOCIATION

I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
<u>JOHN EDWARD OSBORN,</u> <u>KENNETH A. ARMSON,</u> <u>DAVID GORDON,</u> <u>JOHN RANDOLPH CARY, Resumed</u>	6085
Continued Cross-Examination by Mr. Campbell	6085

(v)

I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
180	Sketch with respect to non-treatable areas versus NSR survey areas.	6146

1 ---Upon commencing at 9:35 a.m.

2 THE CHAIRMAN: Good morning, everyone.
3 Please be seated.

4 Is there anything by way of a preliminary
5 nature this morning from anyone?

6 MR. FREIDIN: Just one matter.

7 THE CHAIRMAN: Mr. Freidin?

8 MR. FREIDIN: Mr. Chairman, seeing
9 September the 1st is motion day, I felt that we should
10 have a motion as well.

11 The Ministry believes that it would
12 probably be appropriate that the Board have their
13 second site visit some time in November, and we are
14 thinking of the second or the third week of November,
15 and we are thinking about that part of the province
16 which is composed primarily of Great Lakes/St.
17 Lawrence forest regions, so we are talking Algonquin
18 northeast out towards Ottawa.

19 What I would like today, if I could, is
20 to obtain directions as to service of a Notice of
21 Motion similar to the one we served the last time which
22 would be served on all parties who are receiving
23 full-time correspondence and that the motion would be
24 returnable on September the 1st and, of course, our
25 Notice of Motion would be provided to those people

1 basically indicating -- I mean, September the 1st --
2 the Notice of Motion indicating what in fact we were
3 proposing.

4 THE CHAIRMAN: Well, Mr. Freidin, is it
5 not premature in the sense that we will not really be
6 into a different season; will we, in November?

7 It was the Board's understanding. I
8 think. That we have had the opportunity of a site
9 visit in the summertime and, therefore, saw the
10 activities that were going on in the summertime.

11 The activities I think, at least to my
12 knowledge, are somewhat different in the winter time
13 when there is snow on the ground and ice and that kind
14 of thing as opposed to the fall which would be very
15 similar; would it not?

16 Is there something specifically that we
17 should be seeing out the other end of the province?

18 MR. FREIDIN: Yes, there is something
19 specific. I think having a visit in November would not
20 preclude a winter visit to see winter operations.

21 However, we feel that it would be
22 appropriate and that the Board actually observe some of
23 the activities in a different forest region, the Great
24 Lakes/St. Lawrence. You will see different methods of
25 harvest, you will see how they do selection cutting,

1 you will see a different type of forest there and we
2 felt that taking that visit at this time, particularly
3 before we start hearing a lot of evidence about each of
4 the activities, that you have had an opportunity to
5 observe those activities in both forest regions.

6 THE CHAIRMAN: Okay. As long as it does
7 not preclude us looking at the winter activities as
8 well, because I think we should have a full range of
9 the different seasons in terms of the activities.

10 MR. FREIDIN: All right.

11 THE CHAIRMAN: As far as the direction
12 regarding service, when were you proposing to have it
13 ready to be served, almost immediately?

14 MR. FREIDIN: Almost immediately,
15 probably we would try to have it ready to be served
16 tomorrow, so it would have to go in the mail, I guess.

17 THE CHAIRMAN: You better check that.
18 According to the news reports this morning, there may
19 be not be mail very much longer.

20 MR. FREIDIN: By courier then, Mr.
21 Chairman.

22 THE CHAIRMAN: I think it would probably
23 be better, if you are going to have it returnable for
24 the 1st, to have it delivered by courier so that people
25 at least get it. And, once again, I think it should

1 probably be to the parties on the full-time
2 correspondence list.

3 MR. FREIDIN: Very well.

4 THE CHAIRMAN: Parties around here you
5 can just hand it to.

6 MR. FREIDIN: Okay. And I should just
7 advise before I sit down that the Ministry is also
8 giving some thought as to arranging some day trips,
9 either day trips from Thunder Bay or perhaps even day
10 trips in other locations that the Board could actually
11 attend on their way to Thunder Bay.

12 For an example, a one-day or two-day
13 visit in a particular area for a very specific purpose,
14 fly on to Thunder Bay and we can finish off the week
15 with hearings.

16 So I just wanted to let you know that we
17 are thinking about doing that as well.

18 THE CHAIRMAN: Very well.

19 MR. FREIDIN: Thank you.

20 THE CHAIRMAN: Thank you.

21 Mr. Campbell?

22 MR. CAMPBELL: Thank you, Mr. Chairman.

23 Just on this matter of site visits. I am not sure what
24 we are getting tomorrow, whether it identifies
25 particular locations and so on, but it is our view that

1 there is some onus on the proponent to identify areas
2 for visits in which they would say that there had been
3 a distinct lack of success in achieving a management
4 objective or an environmental problem observed.

5 And I guess I make this submission simply
6 so my friend Mr. Freidin is aware of what our thinking
7 is on the the matter and the Board is aware of what our
8 thinking is on the the matter and recognizing the
9 practical reality that the proponent has people on that
10 land all the time and is in a much better position to
11 identify those kinds of situations and, in my
12 submission, has a heavy onus to do so so that the Board
13 sees all sides of the picture.

14 THE CHAIRMAN: Well, I think from our
15 experience with the last one, the Ministry pointed out,
16 in our view, several areas of concern, as well as the
17 other parties.

18 So I think between the Ministry and the
19 other parties who also, in many cases, are aware of
20 some of the problem areas, we should be getting a
21 reasonably comprehensive picture.

22 MR. CAMPBELL: Thank you.

23 Mr. Chairman, there was some discussion
24 during my cross-examination last week of the running of
25 the OWOSFOP model that's used for MAD calculations on

1 various units.

2 As I understand it, the various types of
3 units - the FMA units, Crown units, company units - the
4 model would have been run on approximately 50 out of a
5 total of 100 of those units. I have arranged with my
6 friend Mr. Freidin that at some convenient time, which
7 I expect probably will be October, we will sit down
8 with the Ministry of Natural Resources' staff and try
9 and determine, as best we can, the data that might be
10 available through these OWOSFOP runs, the database, I
11 gather a large portion of it would be electronic and,
12 therefore, would be fairly easy to gather.

13 If it is useful, I think you will hear
14 from us again on this matter. If it turns out that we
15 are persuaded that in fact it won't give us the kind of
16 comprehensive database which is so obviously lacking
17 now, then that will be the end of it.

18 But I don't think it is worth pursuing in
19 cross-examination any further. I think this will be a
20 more productive way for us to find out exactly what is
21 available and then deal with it in light of that
22 knowledge as opposed to in this form. But I don't want
23 the Board thinking that my modest confusion over
24 different types of units on last Thursday has led us to
25 drop the matter entirely; we have not.

1 THE CHAIRMAN: Well, that's acceptable,
2 but I would like to advise everybody that we want to
3 try and avoid, as much as possible - and I know it will
4 not be possible in all cases - of having to recall
5 panels, you know, unless it is productive and it really
6 is necessary to recall a panel.

7 MR. CAMPBELL: It would be my hope that
8 if there is something useful that comes out of it, that
9 it might be quite possible to arrange just the
10 information to come in without the panel being
11 recalled. I think it will be that kind --

12 THE CHAIRMAN: Through an interrogatory
13 type of process?

14 MR. CAMPBELL: Yes.

15 THE CHAIRMAN: Very well.

16 MR. CAMPBELL: As I say, I wanted the
17 Board to be aware that the matter was quiet, but not
18 forgotten.

19 JOHN EDWARD OSBORN,
20 KENNETH A. ARMSON,
21 JOHN RANDOLPH CARY,
 DAVID GORDON, Resumed

22 CONTINUED CROSS-EXAMINATION BY MR. CAMPBELL:

23 Q. Panel, the next topic that I want to
24 deal with relates to NSR surveys, and I am not sure
25 quite who the right person is to address these

1 questions to, I sort of will look on you, Mr. Cary, as
2 team leader and if you can direct me to the appropriate
3 person to pass it off to.

4 Am I correct that all depletions,
5 man-made or natural, are subject to NSR surveys?

6 MR. CARY: A. That's correct, but I
7 think Mr. Gordon, who dealt with this evidence in our
8 testimony, is better qualified and is familiar with the
9 evidence in the panel statement.

10 Q. Thank you. Mr. Gordon, you would
11 agree with that answer, that all depletions, man-made
12 or natural, are subject to NSR surveys?

13 MR. GORDON: A. I think we have to have
14 a more detailed answer than that. What we have to
15 recognize is the purpose of the NSR survey was to look
16 at areas on proposed FMA areas.

17 And so, therefore, when you say all
18 depletions, I am wondering if you mean whether there is
19 a fire anywhere in the province, is that area therefore
20 subject to an NSR survey and, of course, it isn't.

21 Q. No, I will deal with this in terms of
22 an FMA unit. All depletions within an FMA unit are
23 subject to -- either man-made or natural, are subject
24 to NSR surveys; is that correct?

25 A. If you mean: Is every single stand

1 that could be classified as being barren and scattered
2 or free to grow or every hectare within those stands,
3 is every -- are they all looked at, the question would
4 be no.

5 A high proportion of them would be looked
6 at, but I can't guarantee that every single stand that
7 is existing, as a result of a depletion, would have
8 been looked at.

9 MR. CAMPBELL: I can't believe that I got
10 hung up on my first question, Mr. Chairman.

11 Q. I thought the evidence of this panel
12 was clear, that all depletions were subject to NSR
13 surveys and that was whether they were man-made or
14 natural?

15 MR. GORDON: A. That is the intent.
16 What I am telling you though is I can't guarantee that
17 on every single FMA, where an NSR survey was carried
18 out, that every single depletion was looked at.

19 In my estimation that probably would be
20 unreasonable to assume that they would go to every
21 single corner of every single proposed FMA unit to look
22 at every single depletion. What they would have done
23 is looked at a very high percentage of those.

24 Q. All right. Well, I don't want to
25 pick nits, Mr. Gordon. The basic proposition, subject

1 to the real world and never being perfect, is to check
2 all depletions both man-made and natural?

3 A. In general terms, that is correct.

4 Q. Right. Now, I want to turn your
5 attention first then to NSR site classes 4 and 5, and I
6 would like you to describe for me, please, the site
7 characteristics which are most often associated with
8 those classes starting with NSR 4.

9 And I guess, in that regard, I would like
10 you to refer to the Timber Management Planning Manual
11 which is Exhibit 7, page 172, for guidance in this
12 matter. Just a moment, I think I have got the wrong
13 page.

14 Well, the reference I am looking for -- I
15 have obviously got the wrong page, but the reference I
16 am looking for is where it describes the site
17 characteristics for NSR 4 and describes things like old
18 cut-overs with heavy residual content.

19 A. Well, you have got that in the
20 definitions in the TMPM page 172, and I think that is
21 where you directed me to. And, as well, if you turn
22 to --

23 Q. Oh, yes, okay, that's right. There
24 it is, I am sorry. I am sorry.

25 All right. Now, I guess my question is:

1 I would like you to describe, in as much as detail as
2 you can, the site characteristics that are associated
3 with NSR 4 and I guess, first of all, do it starting
4 with older cut-overs with heavy residual content.

5 What does heavy residual content mean; is
6 that slash?

7 A. It usually means -- for example, in
8 some areas of the province, when these areas were
9 harvested, there potentially was not -- there was not a
10 market for perhaps poplar or white birch and so when
11 they harvested those specific areas that we are talking
12 about right now, they went in and perhaps removed the
13 jack pine, the balsam fir and the spruce and they left
14 the poplar and/or white birch standing, and those
15 standing white birch and poplar trees we call
16 residuals.

17 And, obviously, if there is an awful lot
18 of them, we say it is very heavy to residuals. And
19 when we use that term, very often the reason we use
20 that is it is so heavy to residuals that it is
21 difficult to bring in a piece of site preparation
22 equipment and move it between those trees that are
23 still standing to prepare the ground for tree planting.
24 That's how we tend to use that term.

25 Q. All right. And the general phrase

1 there, difficult terrain, is used as describing site
2 characteristics for NSR class 4. What is meant by
3 difficult terrain?

4 A. Again, it would pertain to the type
5 of equipment that the district felt was available to
6 them for doing -- for their treatments and it would
7 tend to include such things as a recognition of adverse
8 slopes, perhaps the terrain was broken, that you would
9 have small flat areas, maybe a drop of three or four or
10 five feet which causes difficulty for heavy equipment,
11 it may change from being a dry area fairly quickly into
12 a small wet area, a swampy area.

13 So that's one of the interpretations of
14 that.

15 Q. And those kinds of situations are
16 fairly common through the area of the undertaking; are
17 they not?

18 A. They would be found throughout the
19 area of the undertaking.

20 Q. Are they fairly common throughout the
21 area of the undertaking?

22 A. It depends what you mean by common,
23 and, as well, I really haven't, you know, sort of been
24 all over the whole province. In general terms, there
25 is some commonality to them.

1 Q. But we are not talking about rare
2 little pockets of difficult terrain and an otherwise
3 gorgeous flat sand plain that is sprouting trees like
4 weeds, we are talking about something that occurs with
5 a fair degree of regularity across the full area of the
6 undertaking; are we not?

7 A. We are, but as to what proportion of
8 the land area is in this "class" I can't say. It is
9 out there. You know, as to whether it is 2 per cent or
10 15 per cent, it would be very difficult for me to
11 comment on that at this time.

12 Q. All right. But it is not a
13 negligible amount. It is not something that we can
14 just ignore?

15 A. I don't know what you mean by that.

16 Q. What other site characteristics
17 beyond heavy residual content or difficult terrain
18 would give rise to NSR site class 4?

19 MR. CARY: A. Mr. Campbell, I read the
20 heavy residual content and difficult terrain under the
21 heading site class 5, not 4, in my page 172.

22 Q. I think you will find -- we will move
23 on to site class 5. I think I am correct in 4, it is
24 heavy residual content or difficult terrain. I
25 wondered what other site characteristics there are, Mr.

1 Gordon, that would warrant placing an area in NSR 4?

2 MR. GORDON: A. Those would be the major
3 ones.

4 Q. Well, they may be the major ones, I
5 am asking what others are there?

6 A. None come to my mind.

7 Q. Can any of the other panel members
8 assist on this?

9 Are there any other site characteristics
10 that could be described that would give rise to NSR 4,
11 or is your evidence that this is an exhaustive list?

12 Mr. Armson?

13 MR. ARMSON: A. I can think of one
14 example and that would be in some morainic soils where
15 you have a large amount of boulders, very large
16 boulders and that could be -- it is a terrain problem.

17 I don't think it is one that Mr. Gordon
18 mentioned, but that is one that could be a problem and,
19 therefore, put the land in the category 4 or 5.

20 I think that one -- I just comment that
21 in looking at the criteria, the criteria are relevant
22 only at some point in time, and what may have been a 4
23 in 1980 may not be a 4 in 1988, depending on equipment
24 and technology as being a factor.

25 Q. All right. But let's just pause for

1 this business of equipment for a minute.

2 You spoke the other day, for instance, of
3 low floation tires or - I don't know if I have the
4 term - low pressure tires, big tires. When an
5 equipment development is made like that, does it
6 immediately become uniformly available across the
7 province?

8 A. No, because in the development of
9 that equipment, I believe, if I am correct, the initial
10 development occurred in the mid to late -- mid-70s, I
11 believe, undertaken by, as I say, Forest Engineering
12 Research Institute in conjunction with one or two
13 companies, particularly Spruce Falls Pulp and Power --
14 or Power and Paper, and it is usually normally a
15 time...

16 For example, there were a lot of problems
17 in getting the tires at a cost and also adapting the
18 skidder equipment to it. One of the factors that was
19 involved was just the mechanical problem of getting
20 axle lengths which had to be much longer for the wider
21 tires, and so on.

22 Those are the kinds of things. So it
23 doesn't normally come into existence, bingo, and
24 usually there are prototype models that a company will
25 use, maybe part of one's camp operation may be

1 converted initially, and so on.

2 So you do have usually a period of some
3 time, often several years, in the development of
4 equipment, and then it becomes generally available.

5 Q. You would agree with me, though, that
6 in terms of using equipment which allows you to raise
7 productivity, to convert to that equipment involves
8 often a large expenditure of funds?

9 A. That is my understanding, yes.

10 Q. And that that is not done on a
11 province-wide basis by all companies or by the Crown as
12 soon as that equipment becomes available, they quite
13 properly and naturally want to make the best economic
14 use of their existing stock of equipment as well?

15 A. That's correct.

16 Q. So where there is a technological
17 improvement, the move towards the advantages that it
18 offers is a gradual move?

19 A. Well, it is gradual and then every
20 now and again there is a little leap.

21 For example, the move to this kind of
22 equipment is of much greater relevance where you have
23 relatively large areas of the kind of terrain and
24 conditions where that gives you a major advantage or
25 enables you to do things in a way that you couldn't do

1 before. There may be similar conditions, but of much
2 limited extent that another company has and they
3 wouldn't consider using that equipment. In fact, that
4 may be a major condition there.

5 Q. All right. Just coming back to you
6 then, Mr. Gordon. You have been very careful on
7 several of your answers to qualify them subject to
8 equipment availability.

9 I take it that that would indicate that
10 all of the most up-to-date equipment with all of the
11 best available features is not all available to each
12 and every unit at any particular point of time, it
13 comes in gradually to be available for use. Would that
14 be fair?

15 MR. GORDON: A. That's correct.

16 Q. And in some cases we are talking
17 about periods of years, not periods of weeks or months?

18 A. That could happen also.

19 Q. Is that -- I know it could happen,
20 Mr. Gordon. Is it correct that we are talking periods
21 of many years, we are not talking about: You all get
22 new equipment with big tires next week? These things
23 happen over periods of years because of the
24 expenditures involved and because of the investment
25 already in existing equipment?

1 A. That is correct.

2 Q. Now, Mr. Armson, are you able to
3 think of any other site characteristics where NSR 4
4 classification is likely to arise?

5 MR. ARMSON: A. None come immediately to
6 mind than the ones that Mr. Gordon and the additional
7 one that I mentioned, not just offhand.

8 Q. Mr. Cary?

9 MR. CARY: A. None come to mind.

10 Q. And, Dr. Osborn - unless you think it
11 is useful for me to ask you this question - I don't
12 think this is your area.

13 DR. OSBORN: A. No, but there are two
14 areas that are related to this that perhaps I can add.

15 The first is where the cut has been
16 dispersed, for whatever reason, that the dispersal of
17 the cut and the many small cuts and a very diffuse
18 spreading over the whole area, and the lack of access
19 to some of those areas because of the timing of the
20 cut, may well make some of them so remote and the
21 rehabilitation of the roads to access them, that the
22 cost of getting there prohibits -- or is in excess of
23 what it normally would be. This applies to 4 and 5,
24 the access question.

25 The second is related to something Mr.

1 Gordon said. Where the methods of cutting have been
2 modified to suit a range of purposes, typically the cut
3 is modified to such that not all the trees are taken.
4 And, in those circumstances, where to fulfill a range
5 of objectives, the method of cutting may be such that,
6 again, the physical ability to get equipment in to site
7 prepare and regenerate that site may well cause
8 increased costs and/or damage to the residuals trees.

9 So both those two circumstances are sort
10 of extensions to which that Mr. Gordon said.

11 Q. All right. Now, Mr. Gordon, I would
12 just like to come back now with the benefit of all of
13 the -- with the assistance from your friends on the
14 panel and ask you to give what, in your experience,
15 would be a reasonable estimation within the area of the
16 undertaking or a range as to what - and in any terms
17 that you are comfortable expressing it - the proportion
18 of lands that have those site characteristics that
19 would be consistent with NSR class 4.

20 MR. GORDON: A. Well, the only number I
21 can refer to is in Document No. 26, the pie graph, page
22 220. And in that aggregation of NSR surveys for
23 1.5-million hectares, we identify 4 per cent being in
24 the NSR 4 class.

25 Q. All right. And what I am really

1 asking you, though, is: Is your experience consistent
2 with that 4 per cent number or, in looking at it, is
3 your sense of it, based on your experience, that that
4 number is a little high, a little low, or just about
5 right?

6 A. I can't comment on that. All I can
7 do is go by the results that are here. It would be
8 unreasonable for me to make a guess as to what...

9 Q. I am not asking you to make a guess,
10 Mr. Gordon, you are qualified as an expert witness
11 entitled to express opinions, and I am asking for your
12 opinion.

13 MR. FREIDIN: You are suggesting his
14 opinion be a guess.

15 MR. CAMPBELL: If he is unable to express
16 an opinion, Mr. Chairman, I am quite willing to accept
17 that from each of the panel. That is not what he said,
18 with respect to my friend.

19 MR. GORDON: What I said was the best
20 information I have available at this point in time is
21 in that pie graph. So I have no reason to dispute that
22 4 per cent.

23 MR. CAMPBELL: Q. I am not asking you
24 whether you have a reason to dispute it, Mr. Gordon. I
25 am asking whether, in your professional opinion, that 4

1 per cent seems to you consistent with your experience?

2 MR. GORDON: A. I can't comment on that.

3 Q. Can any -- Mr. Armson, are you able
4 to comment on that?

5 MR. ARMSON: A. Well, I would note two
6 things, Mr. Campbell. The forest management agreement
7 areas on page 219 list not only the forests -- the
8 total areas and the areas broken out by the various NSR
9 categories, and I think the thing that stands out - and
10 my own observations over many years would bear this
11 out - is that there is a very wide range of
12 proportions, if you will, of these categories of land
13 depending upon the nature of the forest, the nature of
14 the kinds of operations and activities, particularly
15 the land forms that are present, and if you look down
16 the category for 4 and for 5, and then in relation to
17 the total areas, you will see that there is a very wide
18 range of proportions.

19 And I think that my opinion would be
20 there isn't -- the 4.4 is in fact an average for the
21 total area and probably represents, in that sense,
22 exactly that, a mean, but within that you could have a
23 very wide range.

24 Q. So that within any particular unit,
25 as I understand it, that percentage could be very much

1 higher or lower?

2 A. Or lower, correct.

3 Q. And that would depend entirely on the
4 site characteristics of that particular unit?

5 A. It would depend on the land form
6 primarily, and also the types of activities and
7 operations that had been carried out or occurred over
8 the past decades.

9 Q. So you would agree with the
10 proposition, I take it, then, that you must take a
11 close look at the data at the management unit level in
12 order to make some judgment around this, the quantity
13 of NSR 4 and 5 that is likely to result?

14 A. And that was the purpose of the NSR
15 survey in the beginning.

16 Q. All right. But you agree with my
17 proposition; do you?

18 A. Yes.

19 Q. And you would say exactly the same
20 thing for NSR 5 areas, as I understand it?

21 A. It applies to all categories and not
22 just 4 and 5, it applies to all.

23 Q. All right. Now, Mr. Gordon, coming
24 back to you, is it correct that at least with respect
25 to some of the major areas that you spoke to, older

1 cut-overs with heavy residual content, difficult
2 terrain; that is, slopes, a broken structure, a
3 morainic structure, as Mr. Armson has spoken of, that
4 all of those matters are predictable in the sense that
5 it is possible to identify and, to some degree,
6 evaluate them before you go into an area for harvest?

7 MR. GORDON: A. Yes, to some extent you
8 can predict, that is correct.

9 Q. Well, what is your qualification, to
10 some extent? What do you have in mind by putting that
11 qualification on it?

12 A. Well, to go and predict on a
13 site-specific basis, in a lot of cases that may require
14 you to visit that on the ground and what then starts
15 doing is costing money and time. And so you must
16 prioritize. You can't go and look at everything.

17 Q. All right. But my question didn't
18 relate to whether it was cost-effective to do that, my
19 question was simply: Am I not correct that it is
20 possible to identify and evaluate many of those
21 characteristics prior to cutting?

22 A. Yes.

23 Q. And, therefore, you are able to make
24 a prediction in advance of cutting?

25 A. You can make some prediction, but

1 what you should recognize is very often after an area
2 is cut you can see more of the site because the trees
3 are not there, and, therefore, you gain that much more
4 information.

5 So while you can predict before you go,
6 you will know that much more once the harvesting has
7 taken place.

8 Q. All right. But it is quite possible,
9 if you are considering a site for cutting; slope you
10 can certainly tell ahead of time?

11 A. Yes.

12 Q. What you described as kind of a
13 broken area with these three, four-foot kind of rocky
14 ledges and so on, you can tell that ahead of time?

15 A. That is correct.

16 Q. Morainic formations are fairly common
17 throughout the undertaking, as I understand it, Mr.
18 Armson; is that correct?

19 MR. ARMSON: A. That's correct.

20 MR. GORDON: A. Yes.

21 Q. It is possible to identify them ahead
22 of time?

23 A. Yes.

24 Q. Certainly access questions are
25 questions of management choice, so you are able to deal

1 with those in some sense ahead of time?

2 A. Yes.

3 Q. Then modified cut is a management
4 choice, so you are able to deal with that ahead of
5 time?

6 A. Yes.

7 Q. So that in all of those areas you are
8 able to make some kind of prediction ahead of time that
9 if you cut you are going to end up in that site class?

10 Mr. Gordon, I don't think it is a trick
11 question. It seems to me perfectly obvious from the
12 things that we have gone through, you have said you
13 could predict in each one of those areas.

14 Is it not correct then that it is quite
15 possible before you cut to make a prediction that those
16 kinds of areas, if you cut, will end up in NSR site
17 class 4?

18 A. Not necessarily so. Because, for
19 example, five years later when you do an NSR survey,
20 while I may have estimated at that point in time that
21 that area had the potential to end up in NSR class 4,
22 five years later when they do the actual survey, the
23 equipment availability for that location may have
24 changed.

25 As well, when I was perhaps making the

1 prediction, as you are suggesting, before the cut, I
2 might have assumed that the species of interest did not
3 include poplar, and five years down the road when the
4 NSR survey is done, there may have been a change in
5 demand for poplar in that locale and, therefore, when
6 you are doing your assessment as to whether or not the
7 area is free to grow or whatever, in some cases you may
8 accept poplar and in some cases you may not.

9 If there is a market there you may accept
10 it, and when I was doing my projection originally
11 before the harvest took place, I might have assumed
12 that I can't treat it, is poplar going to come back, I
13 don't want poplar, therefore, it might end up in NSR 4,
14 but when they do the survey five years later they are
15 willing to accept poplar and it could be declared free
16 to grow in the poplar forest unit.

17 So it isn't quite straightforward as
18 perhaps you think.

19 Q. Well, you are going five years down
20 the road and I agree that circumstances will change
21 over time, that is what happens with time.

22 But surely MNR does not operate its
23 programs based on: We will rely on better equipment
24 being available to fix all of our problems, we will
25 rely on all of a sudden the industry dying for tag

1 alder, we will rely on all of these wonderful things to
2 save us. Surely, you make management choices based on
3 your best picture of what the future holds.

4 Isn't that reasonable?

5 A. That is correct, and sometimes when
6 you make that management choice, one of the choices you
7 make and you recognize is some areas you will harvest
8 and you will leave those for natural regeneration.
9 Some of those areas may end up in, at the point in time
10 of a survey, in NSR 4 class or they may be declared
11 free to grow in a certain forest unit.

12 Q. Absolutely. My only point is that
13 this is quite predictable and if you sit here and you
14 say: The industry is telling us that its best picture
15 is that it wants black spruce, I see the equipment
16 availability over the next few years looks to me like
17 this; under those circumstances with these site
18 characteristics are you not able to predict, with a
19 reasonable degree of confidence, that if you cut in a
20 particular area it is going to end up in NSR site class
21 4?

22 A. I don't think at the unit level you
23 go through the thought processes that --

24 Q. I am not asking you, Mr. Gordon, what
25 you do. I am asking you: Is it possible?

1 A. Is it possible to do what?

2 Q. To make a prediction based on slopes
3 which are observable, broken situations which are
4 observable, morainic situations which are observable,
5 dispersed cut which is a management choice, level of
6 access which is a management choice, modified cut which
7 is a management choice, taking into account the future
8 need for species and potential equipment development,
9 looking at the information that you have available to
10 you, it is possible to say: If I cut that area it is
11 likely to end up NSR 4?

12 A. It is possible to do that. Our
13 ability to predict is continually improving as we gain
14 more and more information.

15 Q. That is a true forecaster's answer,
16 Mr. Gordon. Can I take it that you agree that it is
17 possible to predict with a reasonable level of
18 confidence?

19 A. I guess the reason I am having
20 difficulty with your question, Mr. Campbell, is I
21 really don't think we, before an area is harvested: Is
22 this area going to become NSR 4 or 5. Like, you don't
23 go through those thought processes.

24 What you say is: If I cut this area, can
25 I treat the area, will it meet my management objectives

1 if I treat that area, and you don't worry about those
2 areas that come back naturally as to whether or not
3 they are going to come back as potentially a class 4 or
4 5. You don't go through those thought processes.

5 But if you are asking: Can you do it,
6 you could make some reasonable attempt at doing so,
7 that is correct.

8 Q. You could make a prediction in which
9 you had reasonable confidence, were you to undertake
10 that exercise; do you agree with that proposition?

11 A. Yes.

12 Q. Thank you. Now, if we can turn then
13 to NSR site class 5. The description of site
14 characteristics at page 172 describes those site
15 characteristics as cut-overs with very heavy residual
16 content, or very difficult terrain, wetness, or access
17 problems.

18 Now, are we talking about all of the same
19 kinds of characteristics that we talked about with site
20 class 4 with the addition of wetness, except we are
21 talking about them in this case to a much greater
22 degree. Is that what characterizes site class 5?

23 A. In general terms, yes. But maybe, If
24 I could be helpful here. When you do an NSR survey you
25 are going out there to determine what areas are free to

1 grow or not free to grow. You go out there and you
2 find and determine what areas are free to grow. So
3 that is fine. Now, you have got some other stuff that
4 isn't free to grow.

5 You then have to make a decision as to
6 what class it is going to go into. Some of those areas
7 you make the decision, based on your experience looking
8 at unit class, et cetera, that perhaps all you need to
9 do is have a tending treatment, those go into 2.

10 There are some other areas that need a
11 little more than a tending treatment, there aren't too
12 many trees out there, maybe you have got to plant some
13 more trees, you can treat them at reasonable cost, you
14 stick those areas that were in the survey into NSR
15 class 3.

16 You have then got some areas that are
17 still left over and you have got to stick them in a
18 class. And what you do there is look at the terrain,
19 look at the access, how much is it going to cost to get
20 those areas back to whatever free to grow standards you
21 are working towards, you look at those areas. The ones
22 that are 50 per cent to 100 per cent more than your
23 normal cost, you stick in 4, and the ones that are
24 really, really expensive --where you've got

25 MR. CAMPBELL: Sorry, you are going to

1 have to slow down.

2 THE CHAIRMAN: Sorry, you are going to
3 have to slow down a little. The reporter is having a
4 lot of trouble.

5 MR. CAMPBELL: I know this is exciting
6 stuff.

7 THE REPORTER: I can't hear you.

8 THE CHAIRMAN: Could you put on your
9 microphone, if it is not on or talk closer to it.

10 MR. GORDON: Those areas that aren't put
11 in NSR class 3 you then have to look at them and decide
12 whether they should go in 4 or 5 and, basically, you
13 are looking at cost.

14 MR. CAMPBELL: Q. Or you are looking at
15 very heavy residual or very difficult terrain?

16 A. Right.

17 Q. Or wetness.

18 A. Which reflects cost.

19 Q. You translate all that into dollars?

20 A. In a general sense, yes.

21 Q. But to go back to my question: That
22 apart from the addition of wetness to the criteria for
23 site characteristics, am I not correct that what we are
24 talking about is the same kinds of conditions as were
25 described with NSR 4 except to a greater degree, the

1 problems are worse; the terrain is worse, the heavy
2 residual is worse, access is worse. That is what the
3 site characteristics are that are commonly associated
4 with NSR 5?

5 A. If you mean by worse it will cost
6 more to try to treat it, that is correct.

7 Q. All right. But presumably we are
8 talking about -- I would like to take you back behind
9 the dollars and have you identify the physical
10 characteristics that give rise to those dollars being
11 greater.

12 And can I take it that, first of all, for
13 instance, it would be -- whereas in NSR 4 slopes were a
14 concern, we are talking about more extreme slopes in
15 NSR 5?

16 A. You could be -- that's correct.

17 Q. That is one of the site
18 characteristics?

19 A. That's right.

20 Q. You would be looking at a land form
21 that was more broken than NSR 4 as another possibility?

22 A. That's correct.

23 Q. Your morainic deposits might well
24 have larger boulders with greater frequency; that would
25 be another example?

1 A. Perhaps, yes.

2 Q. And your management choices with
3 respect to dispersed cut, lack of access, modified cut
4 and so on, they would be even more expensive to do?

5 A. That is correct.

6 Q. And those again, can we agree, as I
7 think as we have on NSR 4, that those matters are all
8 predictable; that is, you are able to identify and
9 evaluate them before you cut in an area?

10 Can we agree with that? You have agreed
11 on NSR 4, I don't see why you can't agree on NSR 5.

12 A. You can predict to some extent but,
13 for example, can you predict an area that is going to
14 end up in 4 versus 5. I would say that that is very
15 difficult to do.

16 Q. I won't ask for that breakdown.
17 Subject to the judgment call as to whether it is 4 or
18 5, those site characteristics allow you to make a
19 prediction with a reasonable degree of confidence that
20 an area is going to end up in NSR 5, or possibly 4 in
21 this case.

22 Do you agree with that proposition?

23 A. Yes.

24 Q. All right. Now, when I read
25 residual - of course, being completely ignorant of

1 these matters - I had sort of thought what we were
2 talking about is what gets called slash, as I
3 understand it, is all the trees or all the branches
4 that gets knocked off the stem of the tree before it is
5 cut, it is the tops and they are left there.

6 Now, am I totally wrong on that?

7 A. I have given you my interpretation of
8 what residual means and there is no question that on
9 some of these sites contributing to the projected cost
10 levels of treatment could be adverse slash conditions;
11 i.e., the branches that are lying on the ground.

12 You put that in combination with
13 residuals, with terrain, et cetera, you know, that
14 might make you decide to put it in a class 4 -- 4 or 5.

15 Q. So heavy slash is another factor that
16 could give rise to cost consideration and, therefore,
17 result in anNSR 4 or 5?

18 A. It could on some specific sites.

19 Q. And again, am I not correct that by
20 observing the types of trees that are there you would
21 be able to make some estimate of whether harvesting
22 those particular trees are likely to give rise to very
23 heavy slash conditions?

24 A. Yes, you can make some estimate.

25 Q. And you can make that estimate with a

1 reasonable degree of confidence. You can predict it
2 with a reasonable degree of confidence; is that not
3 correct?

4 A. Yes.

5 MR. MARTEL: Could I ask a question.
6 What do you call the trees then that are left that are
7 not part of the stand, the poplar, the white birch you
8 spoke of, not the slash which is what Mr. Campbell is
9 talking about, but the stuff that is left on the
10 grounds, the white birch and poplar that is left lying
11 around?

12 Where do you -- what category do you put
13 that in?

14 MR. GORDON: I don't want to split hairs
15 here, but I would just call it slash. If it is lying
16 on the ground it is slash.

17 MR. MARTEL: All right, thank you.

18 MR. CAMPBELL: Q. All right. Now, Mr.
19 Gordon, would you agree that it is not considered
20 economically feasible to reforest NSR class 4 and 5
21 lands?

22 MR. GORDON: A. Based on the current
23 level of investment in renewal, it is considered
24 prudent not to spend monies on those hectares that are
25 classified as 4 and 5.

1 Q. Are you able to answer my question,
2 please? Can you agree that it is not considered
3 economically feasible to reforest NSR class 4 and 5
4 lands?

5 THE CHAIRMAN: Mr. Armson, can you...

6 MR. ARMSON: Yes, if I may, Mr. Chairman,
7 I believe I can clarify it.

8 The answer to Mr. Campbell's question is
9 yes, but I would point out that the survey - and I was
10 one of the principal creators I guess of the survey -
11 was a survey and it was not dealing with
12 predictability, it was dealing with on an area what
13 existed and, therefore, categories were developed.

14 So, in that sense, the predictability was
15 not, and never was, a factor of concern. It was to
16 find out, according to the forest management agreement,
17 what were the categories of area that had been depleted
18 over the past and to then bring, yes, a criterion to
19 that of what can we treat at reasonable cost and what
20 will be unreasonable.

21 And the factors that Mr. Campbell is
22 elucidated in terms of the terrain, the location, the
23 breaking up, residuals, and so on were all factors that
24 were criteria in terms of identification in the survey.
25 They were not criteria set out for predictability to

1 on-going options and that was never the intent.

2 MR. CAMPBELL: Well, it may not be -- it
3 may well not have been the Ministry - if I can respond
4 to the editorial, Mr. Chairman - it may well not be
5 what the Ministry designed the survey to be done, or
6 rather to do, it may be quite right, but it seems to me
7 that we have unqualified answers that it can be used in
8 that way, and the significance of that will become
9 clear in the course of, if not sooner, argument.

10 THE CHAIRMAN: Well, just a moment, Mr.
11 Campbell. I am not sure that what Mr. Gordon said was
12 that the survey can be used in that fashion.

13 MR. CAMPBELL: That is not what I said,
14 Mr. Chairman. What I said was that I have unqualified
15 that those site characteristics are identifiable before
16 cut, and a prediction with reasonable confidence levels
17 can be made as to whether the cut in that area will
18 result in that area going into NSR 4 and 5.

19 THE CHAIRMAN: Right. But having nothing
20 whatsoever to do with the survey as it is presently
21 conducted; is that correct?

22 MR. CAMPBELL: That's right. I mean, I
23 think the survey is great as it is presently conducted.

24 My interest is not in the survey itself,
25 my interest is in the ability to predict what is going

1 to happen if you cut in a particular area, and I have
2 unqualified answers in that matter, and it is that that
3 is -- I want to see, though, and I want to explore with
4 this panel that if we are able to predict an area will
5 end up in those site classes - which we obviously now
6 have established we can do - what I want to establish
7 now is the consequences of it ending up in NSR 4, and
8 that is what my question was aimed at, not at the
9 survey at all.

10 Q. Now, Mr. Armson, as I understand it,
11 you do agree that it is not considered economically
12 feasible to reforest NSR 4 and 5 lands?

13 MR. ARMSON: A. In terms of the purpose
14 of the survey, it was to delineate those that could
15 not, under the current conditions, be treated with
16 "normal cost".

17 Q. Well --

18 A. And I would add, for the species
19 which were designated in the survey. I would like to
20 make it clear that in the survey - and the individual
21 FMA records will attest to this - there may be, for
22 example, in one of them, the one that I was very much
23 involved with, black spruce was the only species that
24 was considered as whether the area was class 1, 2, 3, 4
25 or 5. And so those are factors that enter into the

1 individual surveys.

2 Q. Okay. I am just going to try one
3 more time with both yourself and Mr. Gordon. Will you
4 agree that it is not considered economically feasible
5 to reforest the class 4 and 5 lands?

6 A. Lands with the attributes that we
7 have described, yes, it may well be considered
8 uneconomical.

9 Q. So you agree with the statement?

10 A. Yes. Whether they are called class 4
11 or 5 may or may not be a point.

12 Q. Well, the important thing is the site
13 characteristics?

14 A. That's correct.

15 Q. And you would agree with the
16 statement as well, Mr. Gordon?

17 MR. GORDON: A. Yes, with one qualifier.
18 That, as Mr. Armson pointed out, you know, it depends
19 on the species of interest at the time of the survey,
20 and while it may not be economical to bring those areas
21 back in that species, they may be coming back in a
22 species, a commercial tree species, such as poplar.
23 So, therefore, you don't have to spend money, you still
24 have something coming back.

25 Q. All right. Well, gentlemen, the

1 statement is made without qualification at page 204 of
2 the Timber Management Planning Manual where it states
3 flatly at the top of the page:

4 "It is not considered economically
5 feasible to reforest the class 4 and 5
6 lands."

7 Now, I take it that you don't feel that
8 there is any need to amend the TMPM, the Timber
9 Management Planning Manual -- should that statement be
10 amended? I mean, if you have got it wrong, I would
11 rather know now than argue about it later.

12 A. What I was trying to say is there may
13 be a forest coming back anyway on some of those NSRs 4s
14 and 5s and so, therefore, you don't have to spend money
15 to reforest. That is the difficulty I'm having --

16 Q. Is that what it means when it says:

17 "It is not considered economically
18 feasible to reforest the class 4 and 5
19 lands."?

20 A. That is not -- what I just said is
21 not what that means, if that is what you are asking me.

22 Q. I am interested in this statement and
23 if there is an amendment or a correction or a
24 qualification, I want you to take the opportunity to
25 amend this document right now, otherwise I think I am

1 entitled to rely on this statement.

2 Now, should I be relying on it or is
3 there anything you want to amend about it?

4 A. The sentence is:

5 "It is not considered economically
6 feasible to reforest the class 4 and 5
7 lands."

8 If you go to the results of the survey
9 you will see that they have identified a number of
10 hectares as being classes 4 and 5. What I am saying
11 is - and if you want to consider it a contradiction of
12 that sentence in that manual - what I am saying is: On
13 some of those hectares out there, you don't have to
14 spend money to reforest them, there is a forest coming
15 back.

16 On some of those FMAs they specifically
17 were not interested in poplar at the time they did the
18 survey and, therefore, for that reason it ended up in 4
19 and 5. Some of those areas do have poplar forests
20 coming back, therefore, you don't have to spend money
21 to reforest them. So, therefore, in that respect I
22 Disagree with what that sentence says.

23 Q. All right. Do any other of the panel
24 disagree with that statement in any other way, that you
25 would like to add to that document. Mr. Armson?

1 MR. ARMSON: A. No, I don't disagree
2 with it because the treatable, for what species, is
3 left unsaid. If there was an amendment, I suppose it
4 would be to put a qualifier in there and I think Mr.
5 Gordon has made this clear, it is economically
6 treatable for some particular species or one or more,
7 and that is what I think any forester looking at the
8 manual would take from it.

9 Q. Mr. Cary, do you have any additional
10 amendment which you want to make to the document?

11 MR. CARY: A. I would agree with the
12 qualifier that Mr. Gordon has put on that sentence.

13 Q. All right, thank you.

14 Gentlemen, there has been a theme of,
15 throughout my reading of the transcript and attendance
16 at the hearing about things coming back in poplar, a
17 commercial tree species.

18 Does MNR have an actual forecast that the
19 industry agrees with as to the requirement for poplar
20 in this province, in the area of the undertaking
21 rather?

22 I take it from the wall of silence that
23 the answer is no?

24 MR. GORDON: A. The best estimate that
25 we had was in the volume projections we did in the five

1 scenarios and the future varies, so we made a number of
2 different assumptions.

3 As to will we have one, I would suggest
4 Mr. Cary may be able to confirm this data, we will be
5 taking a very close look at future demand and working
6 with the industry, et cetera, when we go through the
7 review of the Forest Production Policy.

8 Q. So that to the extent that
9 regeneration activities are successful -- well, just
10 let me back up. Would you agree with this proposition:
11 That it may make an enormous difference to the success
12 of regeneration activities, if those regeneration
13 activities are resulting in poplar, it may make an
14 enormous differences to the success or failure of that
15 in relation to what the demand for that particular tree
16 is likely to be in the future?

17 That is going to read terribly in the
18 transcript, but I think the point is clear. Is it not
19 correct that you have got all this stuff coming back in
20 poplar, and we keep hearing that that is a commerical
21 tree species. But if it turns out from the industry's
22 of view that they don't really want very much poplar,
23 then fine, you have got a, what you keep calling, a
24 commercial forest, but would you agree with me that
25 that could hardly be considered successful sustained

1 yield.

2 Would you agree with that?

3 MR. ARMSON: A. I don't think it is
4 possible, Mr. Campbell, at all to make firm predictions
5 about what is going to happen in terms of species
6 utilization.

7 The history tells us that species that
8 have traditionally not been utilized, and not
9 necessarily poplar, I would cite the example of jack
10 pine which up until the mid-1940s was considered a weed
11 species in most cases, but what we are looking at - and
12 I believe I cited the figure and it was based on the
13 statistics of the Ministry - of something of the order
14 of a fourfold increase in poplar utilization from Crown
15 lands.

16 We know also that in the newer pulping
17 processes, the thermal mechanical and chemi-thermal
18 mechanical, that they provide for the pulping industry
19 to utilize increasing amounts of species such as
20 poplar. So that in those areas where that type of
21 technology may come into play to a greater degree, I
22 think we have some sense of the direction and an
23 increase.

24 But there are areas within the province
25 where, for example, poplar is not a major species and,

1 in fact, the utilization is and probably will be into
2 the future predictably primarily dependent on conifers.
3 And it is in those areas and those units where I come
4 back to I, think, the problem Mr. Gordon had. That is
5 where the specifications in terms of species and
6 regeneration and conditions becomes then of very
7 paramount importance and is crucial.

8 To look at the province across the area of
9 the undertaking I think that we would expect and
10 anticipate some significant increase in the use of
11 poplar and possibly birch. I don't think there is any
12 question about at that. What that rate might be, and I
13 think Mr. Gordon has addressed this, is to some degree
14 very much a guess.

15 Q. All right. But you are suggesting to
16 this Board, as I understand your evidence, that
17 management of the forest consists of: Let's see what
18 grows and hope that the industry can use it?

19 A. No, certainly not.

20 Q. Absolutely. So that you are making
21 some kind of projection as to what that industrial
22 demand is going to be by species?

23 A. Yes, in general terms, yes.

24 Q. And that is an essential component,
25 would you agree, to a management objectivity? Would

1 you agree with that?

2 A. Correct.

3 Q. So that it is -- would you not agree,
4 in terms of making some judgment as to whether
5 regeneration or revegetation - which I think is where
6 you can say something will grow - but what we are
7 interested in here is regeneration into a species that
8 the industry can actually utilize and that requires you
9 to know, in some sense, or to forecast in some sense
10 what it is the industry is going to want?

11 A. To a degree and it also means that we
12 have to do that with as best the knowledge of the base,
13 the land base and where we can, in our judgment,
14 collectively consider that the investment should be
15 made to get the desired species or conditions in forest
16 and that is why the question of cost was in the survey.

17 Q. And that's really why you made the
18 statement that -- in your Panel 3 evidence, that the
19 resource is not so much the trees itself, but the land
20 base that produces those trees?

21 A. That's correct, ultimately.

22 Q. And so to the extent that that land
23 base is more or less suitable for producing trees of
24 type "x" as opposed to type "y", that is an important
25 thing to know from a management perspective?

1 A. That is correct and that is why we
2 have pursued that particular delineation of land in the
3 area of the undertaking.

4 Q. All right. And all of that, tied
5 into all of that is a question of what site
6 characteristics are appropriate for producing a
7 sustained yield of those desirable species?

8 A. Correct.

9 Q. Also a very important question?

10 A. Yes.

11 Q. All right. Now, I want to turn next
12 to - and if you would just keep your book open to page
13 204 but go over to the top of page 205 - I want to turn
14 to the question of non-treatable productive forest
15 land.

16 At the top of page 205 the first complete
17 sentence reads:

18 "If an area not economically treatable,
19 it may be classed as non-treatable
20 productive forest land."

21 Do you see that?

22 And later on the page it goes on and says
23 that:

24 "The classifying of non-treatable
25 productive forest areas can arise from

1 harvesting, from burning, from insect
2 Infestation or windthrow, or by disease."
3 Do you see that?

4 A. Yes.

5 Q. And it goes on then to say that:

6 "A non-treatable area is defined as an
7 area where extremes in topography,
8 shallowness of soils, excessive rock,
9 poor drainage or inaccessibility make it
10 uneconomic or impractical to treat."

11 Do you see that?

12 A. Yes.

13 Q. Now, are there any other site
14 characteristics which you would identify as -- which
15 any member of the panel would identify as being
16 associated with non-treatable productive forest areas?

17 Anyone?

18 MR. CARY: A. No.

19 MR. ARMSON: A. No.

20 MR. GORDON: A. No.

21 Q. All right. So that you view this
22 as -- it is your evidence that this is an exhaustive
23 list.

24 MR. ARMSON: A. I don't think - in my
25 opinion there might be a condition, and I can't think

1 of one that might be included there, but I can't think
2 of one off hand. But those would be the general nature
3 of the --

4 Q. Any exceptions or additions would be
5 very minor in nature, could you agree with that, in
6 comparison to the list here?

7 A. Yes.

8 MR. CARY: A. Yes.

9 Q. And you agree with that--

10 MR. GORDON: A. Yes.

11 Q. --Mr. Gordon? And again, Mr. Gordon,
12 with respect to characteristics such as extremes in
13 topography, shallowness of soils, excessive rock, poor
14 drainage, inaccessibility, all of those things are
15 predictable; are they not, in the sense that it is
16 possible to identify evaluate them before cutting?

17 A. Yes. However, it must be understood
18 that when you ask the question: Can you predict, you
19 can, but you must recognize that for every hectare out
20 there you can't make a perfect prediction.

21 I just want to make sure that that is
22 understood. You make a prediction and it will be
23 reasonable.

24 Q. Well, that was just going to be my
25 next -- you can make that prediction with a reasonable

1 degree of confidence. I am not asking -- it is a
2 prediction, it is not -- by its nature it's not going
3 to be perfect, Mr. Gordon. Now, you give that one away
4 every time.

5 But what I am suggesting is that these
6 physical characteristics are such that it is possible
7 to make a prediction in which you have reasonable
8 confidence?

9 A. That is correct, recognizing things
10 like you have to have access to get to the area and all
11 those other real world things that you must have so
12 that you can go and do the prediction.

13 Q. There may be practical difficulties
14 in doing the prediction, but all I am asking you is:
15 Is it possible to make a prediction?

16 A. Yes.

17 Q. And it is possible to make that
18 prediction that an area is going to end up untreatable
19 if you cut with it with a reasonable degree of
20 confidence?

21 A. I think you can make a reasonable
22 prediction with some confidence that an area has the
23 potential to be "classified as an NSR 4 or 5" somewhere
24 down the road because of economics. As to whether or
25 not you can specifically predict that eight hectares

1 out there is going to fall into this non-treatable
2 category as defined here, that becomes more difficult
3 to do.

4 Q. Well, we are going to have to cycle
5 right back through because potential can be anything
6 from zero to a hundred. Now, I want to know whether,
7 from a management perspective, and I will take you
8 through each one of them individually if you want.

9 Extremes in topography --

10 THE CHAIRMAN: Well, you may not have to.
11 Put your question again and see if Mr. Gordon can agree
12 that if you did it, not whether you do it or--

13 MR. CAMPBELL: Is it not practical --

14 THE CHAIRMAN: --what the practical
15 problems are, but if you did it, is it possible to
16 predict in advance of a cut that the area may fall into
17 a non-treatable category, with reasonable certainty if
18 you did the prediction?

19 MR. GORDON: No.

20 MR. CAMPBELL: Q. What is the different
21 about the non-treatable productive forest area that
22 makes it impossible to predict? Can't you tell where
23 there is an extreme in topography? It is possible to
24 determine where there are extremes in topography?

25 MR. GORDON: A. And, therefore, it may

1 be more expensive to treat or not treat that site,
2 that's correct.

3 Q. Well, let's talk about your --

4 A. I will give you an example.

5 Q. Let me just -- I am sorry. Could I
6 just ask you to be responsive to my question and not
7 make up your own question.

8 MR. FREIDIN: Well, with respect, Mr.
9 Chairman, the question was asked, the witness said:
10 let me give you an example. It is certainly quite
11 common for witnesses, particularly expert witnesses, to
12 give their answers and to make things understandable
13 through examples and I think the witnesses should be
14 allowed that common approach to answer the question.

15 MR. CAMPBELL: I am not objecting to the
16 example, if what he was giving an example of was
17 responsive to the question.

18 In my submission, the original answer,
19 before the exhibit, was not responsive to the question.
20 I am not talking about dollars, I am talking about --
21 MNR has up put up a classification that has physical
22 characteristics associated with it and my question was:
23 Where there is an extreme in topography, is it not
24 possible to tell in advance that that extreme in
25 topography exists and, therefore, falls into a

1 classification that is MNR's classification of
2 non-treatable productive forest areas?

3 I would have thought it as plain as the
4 nose on your face.

5 THE CHAIRMAN: Well, Mr. Gordon, do you
6 want to answer specifically to the series of questions
7 that Mr. Campbell is going to put to you regarding each
8 of these characteristics, if you can't answer regarding
9 the whole list.

10 MR. GORDON: I am trying, sir, I am
11 trying.

12 THE CHAIRMAN: Okay. Go ahead, Mr.
13 Campbell. Let's try and get through this
14 expeditiously, if we can.

15 MR. CAMPBELL: Q. All right. Extremes
16 in topography, you can tell where they are?

17 MR. GORDON: A. That is correct.

18 Q. You know what -- I mean, you wrote
19 the document, MNR wrote the document, you know what's
20 considered a extreme in topography that is part of the
21 definition of non-treatable area; do you not?

22 A. In general terms, yes.

23 Q. Well, what do you mean, in general
24 terms yes? It says:

25 "A non-treatable area is defined as an

1 area where extremes in topography..." et
2 cetera. I didn't write the sentence, MNR wrote the
3 sentence.

4 Now, it is defined as an area where there
5 are extremes in topography, so I presume that you can
6 look -- is it not fair for us and the Board to conclude
7 that you can look at extremes in topography and say:
8 If we cut that it is going to end up as a non-treatable
9 area? Isn't that the definition?

10 A. Yes.

11 Q. Yes, it is the definition or, yes, if
12 you look at the extremes in topography you can figure
13 out that it is going to come out as a non-treatable
14 area?

15 A. You can make an estimate that it
16 could be a non-treatable area, that is correct.

17 Q. Based on extreme in topography?

18 A. That is correct.

19 Q. And you can have reasonable
20 confidence in that prediction?

21 A. No.

22 Q. Well, that's the definition, Mr.
23 Gordon. I'm afraid I am just completely lost?

24 A. It is so site-specific and there are
25 so many factors you have to consider when you determine

1 whether or not an area is non-treatable.

2 In general terms...

3 Q. Is there any extreme --

4 MR. FREIDIN: Let him answer the
5 question, please.

6 MR. GORDON: And, in general terms --

7 MR. CAMPBELL: Q. Okay.

8 THE CHAIRMAN: Gentlemen, hold on. We
9 are not getting anywhere with this bantering back and
10 forth.

11 Now, in order to proceed, I want you, Mr.
12 Gordon, to listen careful to Mr. Campbell's question.
13 If you cannot respond to it, if you want to say no to
14 it because you do not believe that you can answer yes,
15 or yes without a qualifier, then do so.

16 We are interested in your evidence and if
17 Mr. Campbell does not get the answer to the question
18 that he expects or wants, then he is going to have to
19 pursue it in a different direction.

20 MR. CAMPBELL: I apologize for
21 interrupting, Mr. Chairman.

22 THE CHAIRMAN: Okay.

23 MR. CAMPBELL: Q. Mr. Gordon, I guess my
24 question simply is: Is it not possible with a
25 reasonable degree of confidence to look at an area that

1 has extremes in topography and say that is going to end
2 up, if we cut it, as a non-treatable area?

3 MR. GORDON: A. Yes.

4 Q. And is the same true for shallowness
5 of soils?

6 A. Yes, recognizing as I say yes, that
7 the circumstances that led you to make that
8 determination at that point in time may change one or
9 two years down the road and, therefore, they may be
10 treatable.

11 Q. Well, you mean shallowness of soils
12 is going -- all of a sudden somebody is going to come
13 down and put down three feet more of dirt?

14 A. They may have equipment that becomes
15 available that allows you to treat that site.

16 Q. Excessive rock, would you make the
17 same qualification, or can you answer yes to that?

18 A. Yes, with the same qualification.

19 Q. Poor drainage?

20 A. Yes, you can make an estimate of
21 that.

22 Q. Inaccessibility?

23 A. Yes.

24 Q. All right. Now, let's talk just for
25 a moment about the qualification. Presumably when you

1 are making management decisions you have to make that
2 in light of a picture as best you can see it of the
3 equipment that's going to be available down the road as
4 to what it is possible to do or likely to become
5 possible to do?

6 A. That is correct.

7 Q. So that subject to taking that kind
8 of forecast, if you will, into account, allowing for
9 that, is it not possible simply to say then that based
10 on these characteristics it is possible to predict in
11 advance that if you cut an area it will become
12 non-treatable in terms of that definition?

13 I will allow you that the forester will
14 have some picture of what equipment is coming down that
15 might be of assistance in this area and that you can
16 make a proper judgment as to its use or application in
17 these circumstances, even if it is not available right
18 now. Now, allowing you that, would you agree with my
19 proposition?

20 A. You can make an estimate before an
21 area is harvested as to whether or not it has the
22 potential to be untreatable, but what we have to
23 recognize, even something as simple but as important is
24 the harvesting. Once that takes place your projection
25 as to whether or not an area was treatable or

1 untreatable may change because you have gone a little
2 further in time.

3 Q. Fine. That's the nature of a
4 prediction, it may well change. What I am worried
5 about is: Is it possible to make a prediction in which
6 you have a reasonable degree of confidence before you
7 cut?

8 A. Yes.

9 Q. Thank you. Now, in respect of NSR
10 class 4 which we have talked about and the predictions
11 that are available there, NSR 5 and the predictions
12 that are available there, untreatable, predictions that
13 are unavailable there -- and maybe before I ask you
14 this question, something you said is rather -- maybe I
15 will just move ahead for a moment and come back.

16 What is different about non-treatable
17 productive forest areas and NSR 4 and 5 such that they
18 are treated separately throughout these pages 200 on
19 through 205.

20 It seems to me that the site
21 characteristics are quite similar and you go through in
22 this guide an NSR 4 and 5 and then you come to another
23 classification called non-treatable productive forest
24 area. What distinguishes those two?

25 A. Well, the NSR survey takes place at

1 one specific point in time and you go through, at that
2 point in time you identify what class the areas you are
3 looking at fall into and it has got a very specific
4 purpose, you know, to determine what areas should get
5 in the MAD land base, et cetera; obligation of the FMA
6 holder to do some treatment of NSR 2 and 3 areas over
7 the next 20 years. So it has a very specific purpose.

8 Whereas the non-treatable productive
9 forest area, that's separate, that's something else.

10 Q. Well, I understand it is something
11 else. I am not quite sure I understand what the
12 difference is. Non-treatable productive forest area,
13 you mean, once it is classified as that it remains that
14 for all time?

15 A. I personally have not been involved
16 directly in classifying areas as non-productive so I
17 can't answer that.

18 Q. Is anybody able to tell me how you
19 distinguish between NSR 4 and 5 on the one hand and
20 non-treatable productive forest on the other? What are
21 the characteristics that distinguish them?

22 I can see the site characteristics can
23 make them similar, what I don't understand is why you
24 have the different classifications?

25 MR. ARMSON: A. I believe Mr. Gordon has

1 given the very specific answer. The NSR survey was
2 carried out at this point in time under the terms of
3 the agreement and it was purposely used to segregate
4 lands into these categories.

5 The non-treatable section is a totally
6 separate one.

7 Q. What is it used for, the
8 non-treatable productive forest classification?

9 A. In the -- I would note that the pages
10 that we are dealing with are all within the appendix in
11 the Timber Management Planning Manual that deals with
12 forest management agreement areas.

13 And in the responsibilities of the forest
14 management agreement holder - I have forgotten which
15 paragraph - but it is to maintain the productivity of
16 the area. And if this 5.8 on page 205 essentially
17 recognizes that there will be areas that for a variety
18 of reasons, most of which have been gone into here,
19 there will be areas which cannot or economically are
20 not feasible to treat and it was just to provide that
21 description and recognize it because there is a
22 contractual arrangement in the agreement for
23 maintaining productivity.

24 Q. All right. Let me try and state this
25 in a way that I can understand it, and that will

1 invariably mean that is wrong, but you have got an area
2 that you draw on a map at some point in time that is
3 called non-treatable productive forest area; am I
4 right? Under an FMA agreement you identify
5 non-treatable productive forest?

6 A. Well, these would be ongoing, these
7 would be identified in an ongoing way. This is the
8 point, the non-treatable will be identified in an
9 ongoing way, whereas the NSR categories are identified,
10 put on a map and they are fixed at the point of time
11 just prior to the execution of the agreement.

12 Q. Well, isn't that when the NSR survey
13 is done?

14 A. Yes, that's the point. The NSR
15 categories are fixed at a point in time and the company
16 then has an obligation to regenerate, to specify its
17 standards certain of those areas, categories 2,
18 categories 3.

19 The non-treatable is a different category
20 and it is something that will apply in the ongoing
21 process of management of that area.

22 Q. Okay. So just as we are about to
23 sign off on an FMA, a map or some other means is
24 produced to identify a non-treatable productive forest
25 area, the NSR survey --

1 A. No.

2 Q. Didn't you say that this was
3 something that was required to be identified in the
4 agreement?

5 A. The NSR survey and the categorization
6 of the areas by the categories here are identified
7 quantified and the areas <TKAOE> delineated on maps.
8 This has nothing to do with Section 5.8 here which
9 deals with a statement regarding non-treatable
10 productive forest areas. It is totally separate.

11 Q. But all I'm -- so you have got one
12 area of land that is called non-treatable productive
13 forest areas separate from the areas of land that are
14 classified as NSR 4 and 5; is that right?

15 MR. GORDON: A. Can I take a crack at
16 it?

17 Q. Yes.

18 MR. GORDON: A. Before an FMA is signed
19 they do something called an NSR survey.

20 Q. Yes?

21 A. They go out and look at areas that
22 have depleted in the last 20 years or whatever and they
23 put them into certain classification.

24 Q. Yes?

25 A. The purpose is to identify what areas

1 since depletion have become free to grow and therefore
2 can go back in the MAD land base, No. 1; and No. 2,
3 what areas can be economically treated and, therefore,
4 that will form part of the obligation of the FMA holder
5 the NSR 2s and 3s.

6 Okay, so far?

7 Q. Mm-hmm.

8 A. And that all happens before you sign
9 the FMA. You then sign the FMA and you start doing the
10 work every year. Some of that work may be, you know,
11 treating some of those 2s and 3s, whatever.

12 Well, let's forget about the NSR surveys,
13 okay. The FMA holder has an obligation to maintain the
14 productivity of the land base out there and as you go
15 through each year of the FMA the Crown, as it says on
16 page 205, the Crown and the company may come to a
17 mutual agreement and identify areas that are
18 non-treatable productive forest and, therefore, the FMA
19 holder does not have an obligation to go and treat
20 those areas and bring them back to free to grow.

21 That doesn't mean that they won't over,
22 you know, a long period of time or whatever, but that's
23 all -- so the two things are totally separate.

24 Q. Well, I am trying to relate this to
25 the land base which is what we are here talking about

1 and what I am unable to do in any of the information
2 you have given me so far is to tell me how the
3 non-treatable productive forest area, as an area in the
4 land base, relates to NSR 4 and 5?

5 Are you telling me they overlap, that
6 they're separate?

7 A. They are separate.

8 Q. What are they?

9 A. They are totally separate.

10 Q. So on the ground it is a totally --
11 NSR 4 and 5 is a totally separate set of hectares than
12 non-treatable productive forest?

13 MR. ARMSON: A. Yes.

14 Q. And there is no overlap? Am I right,
15 there is no overlap?

16 A. That is correct. They are delineated
17 on the map and that is it. The non-treatable
18 productive areas are a totally separate item.

19 Q. All right. Then I go right back to
20 what my first question was. The description of the
21 site characteristics of NSR 4 and 5 are substantially
22 similar in many respects to non-treatable productive
23 forest areas.

24 MR. GORDON: A. That's correct.

25 Q. And there are different consequences

1 for how you classify it, that hectare of land; are
2 there not?

3 A. What do you mean by different
4 consequences?

5 Q. Well, presumably, the classification
6 exists for some purpose. The purpose is different for
7 non-treatable productive. If you classify that area,
8 it has a different consequence than if you classify it
9 in NSR 4 and 5; is that right?

10 A. Can I take another crack at trying to
11 explain it with the flip chart. It might make sense.

12 Q. Sure.

13 THE CHAIRMAN: Why don't we take a break
14 now, you can draw in your flip chart and we can come
15 back and start fresh.

16 MR. CAMPBELL: Mr. Chairman, in fairness,
17 I should tell you that this is going a whole lot slower
18 than I had anticipated.

19 THE CHAIRMAN: Very well. We will return
20 in 20 minutes.

21 ---Recess at 11:05 a.m.

22 ---Upon resuming at 11:37 a.m.

23 THE CHAIRMAN: Thank you. Be seated,
24 please.

25 Well, Mr. Campbell and panel, let's have

1 another run at the issues in question and see if we can
2 get any further.

3 MR. GORDON: I was going to try and
4 clarify through this diagram the relationship of NSR
5 surveys versus non-treatable.

6 THE CHAIRMAN: Very well.

7 MR. GORDON: Nothing is to scale.

8 MR. CAMPBELL: Q. That was going to be
9 my very next question. Aren't the proportions a little
10 wrong here?

11 MR. GORDON: A. Okay. This is a
12 proposed forest management agreement area outlined in
13 black from year zero; that is, before the FMA is
14 signed. We go out and do an NSR survey. We look at
15 specific areas in that NSR survey, I have outlined them
16 in red, and we classify them 1 to 5.

17 Okay, so that those are those areas right
18 there. (indicating)

19 We sign the FMA, we have a plan in place
20 and we start carrying out harvesting operations and,
21 for example, in year four we may harvest here
22 (indicating), in year five we may harvest here
23 (indicating), but in those areas that we harvest, the
24 FMA holder has an obligation to maintain productivity.

25 However, as for that definition, the

1 Crown and the FMA holder may come to an agreement that
2 some of those areas are non-treatable and so they
3 specifically identify those areas.

4 Those areas, as far as the location, are
5 in the new harvest areas, they are not on top of, or
6 the same hectares that were included in the NSR survey.
7 I believe it is that simple.

8 MR. MARTEL: Do these occur as you go
9 along then after the first -- after the agreement is
10 signed and you go in and you harvest an area, is it
11 that point when you harvested that you determine that
12 the area is non-treatable?

13 In other words, these will occur year
14 after year in small plots as you go along?

15 MR. GORDON: That's correct. I would
16 tend to think as you move through the whole forest
17 management agreement area, over time, every year you
18 will identify -- some years you may identify one
19 hectare, some years you may identify a hundred
20 hectares, but every year you will be identifying some.

21 MR. CAMPBELL: Q. All right. So that
22 your NSR survey that you do in year zero, which we have
23 talked about, covers all depletions and then your
24 non-treatable area is something that you find in your
25 new depletions, your new harvest areas and so it is a

1 separate area, but it may have quite similar site
2 characteristics that gave rise to the NSR 4 and 5
3 classification, in fact?

4 MR. GORDON: A. Yes.

5 THE CHAIRMAN: Leave it there, Mr.
6 Campbell. We have all got it.

7 MR. CAMPBELL: I was just about to note,
8 just to re-emphasize, that the blue dots are not to
9 scale, but perhaps that is unnecessary.

10 MR. FREIDIN: Can we mark that as an
11 exhibit, Mr. Chairman?

12 THE CHAIRMAN: Yes, let's put it in.
13 Exhibit 180.

14 ---EXHIBIT NO. 180: Sketch with respect to
15 non-treatable areas versus NSR
survey areas.

16 MR. CASTRILLI: Mr. Chairman, what is it
17 called?

18 THE CHAIRMAN: Sketch with respect to
19 non-treatable areas.

20 MR. GORDON: Versus NSR survey areas.

21 THE CHAIRMAN: Okay.

22 MR. CAMPBELL: Q. All right. Now, you
23 described the blue circled areas as arising from
24 harvest. I take it, reading the manual, that they can
25 also arise from windthrow, fire, insect depletions as

1 well, not just from harvest?

2 MR. GORDON: A. Right, some type of
3 depletion, that is correct, yes.

4 Q. So it covers all types of depletion?

5 A. That's correct.

6 Q. All right. Now, we have talked about
7 your ability to predict these various classifications
8 being arrived at following a cut and I don't know
9 whether, Mr. Gordon, this question is properly for you
10 or for Mr. Cary. Perhaps I will put it to Mr. Cary
11 first.

12 Would you see as reasonable a requirement
13 to set out for those who are involved in the timber
14 management planning process, before the plan is arrived
15 at in this process that you will eventually be
16 describing to us about how you go about and the public
17 involvement in that planning -- would you see as
18 reasonable a requirement to set out for those involved
19 in the process, the forester's professional judgment as
20 to what will be the result if an area is cut and a
21 proposed treatment or lack of treatment is followed?

22 Do you see that as a reasonable sort of
23 thing to require as information to the public in their
24 involvement in the timber management planning process?

25 MR. CARY: A. And you are still talking

1 this prediction?

2 Q. What I am saying is that: The
3 forester set out his professional judgment as to what
4 will result in an area if that area is cut and the
5 proposed treatment or lack of treatment is followed.

6 Would you agree with me that that is a
7 reasonable piece of information that would be important
8 to those members of the public who are participating in
9 the timber management planning process?

10 A. The experienced unit forester would
11 be aware of what has happened over the past years, so
12 he would be aware of that. The...

13 Q. What I am saying is -- what I am
14 suggesting to you is I have no doubt the forester is
15 able to do that. What I am suggesting is that it might
16 be a very valuable input to those who really want to
17 participate in a meaningful way in the timber
18 management planning process to have that forester set
19 out what that judgment is.

20 A. I think that judgment is embodied in
21 the silvicultural ground rules to some extent in each
22 timber management plan.

23 Q. Well, just a minute, because I think
24 the silvicultural ground rules, they will tell harvest
25 method and so on, but I don't think it then goes on and

1 says: Here's what we expect the result to be.

2 A. They set objectives for the forest
3 units.

4 Q. Well, if you are saying it is already
5 done, then surely what I am suggesting is reasonable
6 and at some point in time you can just explain to me
7 when it is done.

8 Are you agreeing with me that that is a
9 reasonable proposition?

10 A. And I think it is embodied in the
11 ground rules, yes.

12 Q. All right. But do you agree with me
13 that it is a reasonable proposition?

14 A. One has to be aware of what is going
15 to happen after a cut, yes.

16 Q. And is it reasonable to require, in
17 the course of the timber management planning process,
18 that the professional forester set out for the members
19 of the public participating in that process what he
20 expects the result to be in an area if it is cut and
21 the treatment is -- or lack of treatment is followed?

22 Is that a reasonable thing to do; that is
23 my question?

24 A. I believe that is reasonable.

25 Q. Thank you. Now, once you hit on

1 these non-treatable areas - Mr. Gordon, this may be
2 back to you - are they a separate deduction from the
3 MAD base? How are they treated in terms of MAD
4 calculations?

5 MR. GORDON: A. If they are not free to
6 grow, then they would not be part of the MAD land base.
7 I think it would be that simple.

8 So you may make a determination that they
9 are non-treatable and, obviously, at that point in time
10 they are probably not free to grow so, therefore, they
11 would not be part of the MAD land base.

12 Over time, even though you identify them
13 as being non-treatable, they may come back as a certain
14 forest unit and, therefore, could be assessed at a
15 later point in time as being free to grow and,
16 therefore, at that point in time it would become part
17 of the MAD land base.

18 Q. All right. So I can take it from
19 your answer that it may or may not end up free to grow
20 in something that is worthwhile but, if it does, then
21 it falls back into the MAD base; if it doesn't become
22 free to grow and something that is worthwhile, then it
23 falls out of the MAD base -- it never gets back in to
24 the MAD base?

25 A. You identify which forest units you

1 are going to have in your MAD calculation and if it
2 meets the standards for that, for one of those forest
3 units; i.e., the free to grow standard for one of those
4 forest units then --

5 Q. Just a minute. Those forest units
6 being...?

7 A. Excuse me?

8 Q. Those forest units being...?

9 A. Perhaps you have aggregated all the
10 spruce stands together.

11 Q. All right, I understand.

12 A. And if it meets the free to grow
13 standard for one of those forest units, then it would
14 go back into the MAD land base for that forest unit.

15 Q. Okay. I am a little sensitive about
16 units.

17 Can you turn to page 32 of the Timber
18 Management Planning Manual, please. It is Table 4.1.
19 It is the page following -- actually the tables -- it
20 is the table following page 31.

21 I don't know if the page has a number or
22 not, it is Table 4.1, Reported Depletion By Area. Do
23 you have that?

24 A. Yes, I do.

25 Q. Now, sort of hung off at the right

1 side of that chart is a column entitled: Untreatable
2 Area, and I take it from your diagram that is Exhibit
3 180, that the areas of your blue dots would be recorded
4 in that column; is that correct?

5 A. That is correct.

6 Q. So that that is in the database for
7 the MAD calculation?

8 A. It is not in the -- it is not in the
9 MAD.

10 Q. In your use of the OWOSFOP model for
11 MAD calculation, in the database that is available on
12 the 50 units that have done that, would that number be
13 shown?

14 A. I cannot specifically answer that
15 question.

16 MR. CAMPBELL: I will leave that, Mr.
17 Chairman. We are discussing this area generally, as I
18 advised you this morning.

19 Q. Now, if we can go back to page 205 of
20 the Timber Management Planning Manual. Again, Mr.
21 Gordon, I think I will direct this to you, but if any
22 of the other gentlemen wish to add anything, you
23 should, as usual, feel free.

24 At the bottom of the first paragraph
25 under Non-Treatable Productive Forest Area there is a

1 sentence that reads:

2 "Sites damaged through improper
3 harvesting practices shall not be deemed
4 to be non-treatable."

5 And I take it that the thought behind
6 that is that if whoever is doing the harvesting takes
7 inadequate care, they are not allowed to sort of just
8 ignore that, they have -- and deduct it out, they have
9 got to do something about it?

10 A. Yes, they would still have the
11 responsibility of maintaining "productivity".

12 Q. All right. Now, could you list for
13 me the matters that MNR considers to be improper
14 harvesting practices?

15 A. I don't think I can give you a
16 comprehensive list, but what I can do is give you an
17 example based on my experiences as to how this clause
18 could come into play.

19 Q. Well, before you give me the example,
20 can you give me as comprehensive a list as you are
21 capable of at the moment?

22 A. In general terms, it would be where
23 perhaps there was improper use of the harvesting
24 equipment, therefore, damaging the site.

25 Q. All right. What does that mean in

1 ways that I could -- give me a picture.

2 A. Maybe I will give you an example.

3 Q. I knew I wouldn't get away with this.
4 I will come back to the list, give me an example.

5 A. For example, I have been in the
6 district where there were a few areas that some
7 equipment that was fairly heavy did some damage to a
8 small number of hectares and the reason being is the
9 equipment operated on those hectares in the summer and
10 there was no frost in the ground and it was basically a
11 swamp and so, therefore, the heavy equipment and the
12 big tires sank in "the mud" and made large ruts.

13 And so, therefore, while the area perhaps
14 could be considered non-treatable because of these ruts
15 being in the way, they would not qualify because it was
16 a result of the harvesting practice.

17 Q. All right. And have you got any
18 other examples in your experience?

19 A. None come to mind.

20 THE CHAIRMAN: Mr. Gordon, what about a
21 situation where the company is harvesting and through
22 its own inadvertence or negligence causes a fire? Is
23 that considered something resulting from improper
24 harvest practices, or is that considered in the natural
25 disaster category?

1 MR. GORDON: I have never given thought
2 to that one before. It would be in the natural
3 disaster category, I am sure.

4 THE CHAIRMAN: And, as you are aware,
5 when the Board went on the site visit we happened to
6 come across a fire that apparently was started by a
7 spill from a machine of oil or some combustible liquid
8 or something like that, that was under control, et
9 cetera, but it could have been a situation that got out
10 of control as well.

11 MR. GORDON: I am really not qualified in
12 this area. You know, I would tend to think that
13 paragraphs within the Forest Fires Prevention Act would
14 come into play. I really cannot comment in this area.

15 THE CHAIRMAN: Okay.

16 MR. CAMPBELL: Q. All right. Mr.
17 Gordon, your evidence is that the only improper harvest
18 practice that, in your experience, you have seen is
19 going through a swamp with inappropriate equipment at
20 an inappropriate time of year; is that right?

21 MR. GORDON: A. That is correct.

22 Q. Mr. Armson, can you add at all? Are
23 there any other improper harvest practices that might
24 be contemplated by this provision?

25 MR. ARMSON: A. I can think of an

1 example where the maintenance of the forest floor; that
2 is, the surface organic layers, because of whatever
3 reason is considered necessary or at least very minor
4 disturbance or removal of it and where the equipment
5 that is used, maybe in relation to accessing the area
6 whatever, removes the forest floor and exposes the
7 mineral soil to a number of processes and I can concede
8 that that would be a -- in fact I have seen perhaps one
9 or two examples of that, that would be an example too.

10 Q. Are there any others you can think
11 of?

12 MR. CARY: A. Mr. Campbell, in my
13 experience --

14 Q. Sorry, just -- Mr. Armson, that was
15 aimed at you. Are there any --

16 MR. ARMSON: A. No, I would agree with
17 Mr. Gordon about the wet swamp. The one about the
18 forest floor being removed in an excessive manner, it
19 doesn't come to mind.

20 Q. All right. So those are all the
21 examples you are able to think of?

22 A. At this moment.

23 Q. Mr. Cary?

24 MR. CARY: A. In my experience I met the
25 same situation that Mr. Gordon did, except it wasn't a

1 swamp, it was a fine textured soil and machinery was
2 operating in that when it was very wet during the early
3 spring and occasionally that happens in the late fall
4 too, and so there can be some rutting in those sorts of
5 soils as well.

6 Q. All right. Now, is it fair for me to
7 conclude that based on the experience of the members of
8 this panel that these three examples are the only
9 examples of improper harvest practices that you see as
10 being contemplated by those words on page 205 of
11 Exhibit 7?

12 Mr. Cary, is that fair?

13 A. At this time, yes, that is fine.

14 Q. Mr. Armson, you agree with that
15 answer?

16 MR. ARMSON: A. Yes, and particularly it
17 is the timing of the operations as much as the kind --
18 maybe the kind, but it is also the timing of the
19 operation. I think the example that Mr. Cary gave is
20 an excellent one, when the soil is not frozen and silt
21 loam soils that are moister can be tricky ones to
22 handle.

23 Q. All right. And, Mr. Gordon--

24 MR. GORDON: A. Yes.

25 Q. --you would agree?

1 A. Yes.

2 MR. CAMPBELL: Mr. Chairman, I think we
3 are going to be coming back in a later panel to harvest
4 and I think just for the purpose of advising my friend
5 Mr. Freidin and the Board, are any of the members of
6 this panel going to be on that panel about harvest?

7 MR. FREIDIN: No.

8 MR. CAMPBELL: I would like an
9 undertaking from my friend Mr. Freidin to have that
10 panel prepared to outline what MNR considers to be
11 improper harvesting practices if there are any other
12 improper harvest practices beyond those that have been
13 identified by this panel.

14 MR. FREIDIN: I think probably the best
15 way to do it is to just sort of wait and see what the
16 evidence is.

17 I am sure if I don't ask one of the
18 witnesses Mr. Campbell will ask them, but I will
19 certainly advise them that it is something that they
20 are going to have to deal with.

21 THE CHAIRMAN: I think that is all he is
22 asking, that they are advised that this question will
23 come up and they should be prepared to deal with it.
24 If they cannot add anything further, that is fine.

25 MR. CAMPBELL: That's fine. That's

1 exactly right, Mr. Chairman. These gentlemen have said
2 that that is all they can think of now. I would just
3 like the next panel to be doing a little thinking ahead
4 of time. Now I have to remember to do it.

5 Q. Now, when there are improper
6 harvesting practices are those documented?

7 MR. GORDON: A. I know of instances
8 where they are documented. I can't say that they are
9 documented in every case.

10 Q. Is the information on improper
11 harvesting practices and the extent of that is a
12 problem gathered at the provincial level, aggregated --
13 or aggregated at a level that would cover most of the
14 undertaking?

15 MR. CARY: A. No, it is not.

16 Q. So I take it that on -- based on that
17 answer that this panel - I will address this to you,
18 Mr. Cary, and again the others chip in if they can
19 help - but this panel is not in any position to say
20 whether this question of -- this issue of improper
21 harvesting practices is in fact a nit to be picked or a
22 real problem?

23 A. I could pass an opinion on that. In
24 my view it is not a significant problem in the area of
25 the undertaking.

1 Q. And would you agree with that, Mr.
2 Armson?

3 MR. ARMSON: A. Yes, I would.

4 Q. You, Mr. Gordon?

5 MR. GORDON: A. Yes, I do.

6 Q. Is it so insignificant, Mr. Cary, as
7 to make its continued pursual an exercise in
8 nitpicking?

9 THE CHAIRMAN: Do you want to pass an
10 opinion on that, Mr. Cary?

11 MR. CAMPBELL: Q. It is not very often
12 you get a chance to tell a lawyer this. You know, I
13 thought I would give you the opportunity.

14 MR. CARY: A. It is my view that it is
15 not a significant problem in the area of the
16 undertaking and that the silvicultural ground rules,
17 the measures we take in the timber management planning
18 and in the approved plans make this a rare occurrence.

19 Q. Okay. I want to turn to an example
20 dealing with sort of site characteristics and what
21 might happen and I am going to propose to you, Mr.
22 Gordon, an area that is -- that has roughly this
23 description:

24 It is basically rock with pockets of good
25 soil, there is trees growing on that soil with good age

1 over height relationship, all of the growing area
2 available from that soil is fully utilized, but taking
3 the area as a whole it is only 30 per cent stocked
4 because of excessive rock. Is that an adequate
5 description for some discussion?

6 MR. GORDON: A. It depends what your
7 question is.

8 Q. Would such an area be eligible for
9 cut?

10 A. I don't know how specific we are
11 going to get here, but I can't recall at this point in
12 time the exact definition of barren and scattered but
13 if the stocking level was low enough in that stand,
14 then it could be identified as being barren and
15 scattered and, therefore, it would not be part of the
16 MAD land base. If we assumed that that isn't the case,
17 maybe we...

18 Q. Does that mean it would not be
19 eligible for cut?

20 A. If the area is 30 per cent stocked
21 and is classified as being barren and scattered, then
22 it is not eligible, it is not part of the MAD land
23 base.

24 Q. All right. Does that mean it is not
25 eligible for cut?

1 A. It could be considered for harvest.

2 Q. So it is such an area -- then the
3 answer to my question--

4 A. Yes.

5 Q. --is that such an area is eligible
6 for cut, even if it is barren and scattered and all the
7 rest?

8 A. It could be eligible, yes.

9 Q. There is a judgement that has got to
10 be made there?

11 A. Yes.

12 Q. And that judgment is made at the
13 discretion of the unit forester?

14 A. Yes.

15 Q. Is it not so that in the
16 circumstances that I have described, that area would
17 never reach free to grow because it will never meet any
18 of your benchmark stocking standards for any working
19 group?

20 A. If we assume the area that you
21 described was of rotation age or whatever and you went
22 and harvested it, there is a very good possibility that
23 it would become free to grow to some standard.

24 Q. I am talking --

25 A. To a standard of some forest unit.

1 Q. All right. But would not that
2 require -- in order for that to be so, would not that
3 require the unit forester to make a discretionary
4 adjustment to the stocking standard?

5 A. You will have the benchmark regional
6 standards and you may have a standard that may be
7 slightly different and documented in a management plan.

8 Whichever one of those we are talking
9 about, for an area to be declared free to grow it must
10 meet that standard.

11 Q. All right. Well, you have provided
12 in your evidence a set of benchmark standards?

13 A. Right.

14 Q. You have established that it would be
15 eligible for cut and, as I understand what you said,
16 you said you would -- it is entirely possible that the
17 benchmark standard would be adjusted.

18 A. No, no. If I said that I didn't mean
19 that.

20 Q. Well, it would be that a different
21 standard other than the benchmark standard would be
22 selected for that area at the discretion of the unit
23 forester?

24 A. I don't think I said that either.

25 Q. All right. How does it work?

1 A. Okay. We would --

2 Q. My question is: Is it not so that it
3 would never reach free to grow because it would never
4 meet any of the benchmark standards outlined in your
5 evidence for any working group?

6 A. My answer is no to that, that it
7 could become free to grow for some forest unit.

8 Q. But there is no forest unit that has
9 a stocking standard, if I recall it correctly, of less
10 than 30 per cent in the benchmark standards; is that
11 not correct?

12 A. That is correct, but I believe in the
13 description of the site that we are talking about, you
14 were telling me the stocking level at -- and when the
15 stand was perhaps 100 years old. That doesn't mean
16 that the stocking level, therefore, will never be more
17 than 30 per cent at any time during the life of the
18 following stand.

19 Q. Well, I don't care what the exact
20 number is. What I am proposing to you is a situation
21 where you have these pockets of soils scattered amongst
22 rock otherwise such that your -- such that if trees
23 come back there it would never reach the regional
24 benchmark standards for stocking?

25 A. Therefore, it cannot be declared free

1 to grow.

2 Q. So that the regional benchmark
3 standards are mandatory?

4 I am sorry, your answer has confused me
5 because I had understood that those regional benchmark
6 standards were guidelines and that the unit forester
7 had the discretion to say: Well, for that particular
8 area, I think the minimum stocking we should be looking
9 at as an appropriate management objective is 20 per
10 cent which is, say, 20 per cent lower than the minimum
11 regional benchmark?

12 A. All I can say to try to clarify it is
13 if we turn, for example, to page 193 in the Panel 4
14 statement, if we look at the very first sentence there
15 it says:

16 "Benchmark standards..."

17 THE CHAIRMAN: Sorry. It is Exhibit 175.

18 MR. CAMPBELL: Q. Okay, yes.

19 MR. GORDON: A. "These standards are
20 intended as a guide for minimally
21 acceptable forestry practice."

22 So they are the standards.

23 "Standards for individual forests may be
24 different and must be explained in the
25 management plan."

1 So the only way that you will have a
2 different standard within a given region is if you
3 present a rationale in a specific management plan that
4 goes through peer review and is accepted.

5 Q. All right. But isn't that exactly
6 what I am saying, that there is a discretion at the
7 unit level to adopt a standard of stocking which is
8 less than the benchmark standard?

9 A. If a unit forester proposes a lower
10 stocking level and he presents a rationale for doing
11 that and that plan is approved, then you have a
12 different free to grow standard for that management
13 unit.

14 In my estimation, the stocking level, if
15 anything, will not go down but the unit forester may
16 propose a lower stocking level or a higher stocking
17 level. What you are proposing, if anything, is the
18 exception.

19 Q. All right. Could you turn to our
20 Interrogatory No. 17 which is page 17 of Exhibit 179.
21 There we asked the question whether the pre-established
22 norm for stocking were -- the norms were the stocking
23 benchmarks produced in your Document No. 17, and you
24 answered by saying that:

25 "The pre-established norm to which a

1 manager would compare the results of a
2 given stocking survey is determined by
3 the local manager. It could be the
4 stocking component of the benchmark
5 FTG standards."

6 But I read that answer -- it goes on to
7 say:

8 "The pre-established norm could also have
9 been established for a specific project
10 area."

11 Now, as I read that answer, I take it to
12 mean that there is a discretion at the unit level to
13 establish a stocking level that departs from the
14 stocking benchmarks which you have produced in Document
15 No. 17.

16 Now, am I not correct in that assumption?

17 A. I believe you may be incorrect.

18 Q. Isn't that what the answer would
19 indicate?

20 A. Your question, as far as I understood
21 it to be, was in relation to paragraph 28 on page 29
22 which was specifically talking about stocking which is
23 a condition survey.

24 Q. Mm-hmm.

25 A. And your question was not

1 specifically dealing with the stocking portion of the
2 free to grow standard. So that's why it is answered in
3 the way that it is answered.

4 A stocking survey, per se, is a survey of
5 the conditions of the stand at a given point in time.
6 A free to grow survey is something that is separate and
7 includes a stocking component.

8 Q. But isn't one of the measures of free
9 to grow -- one of several tests - and we will be coming
10 to them in a moment - isn't one of those tests
11 stocking?

12 A. That is correct.

13 Q. And the suggested -- are you telling
14 me that the standards that are set out for free to grow
15 benchmark standards are different in some way from
16 regional benchmark standards for stocking? I mean, I
17 thought I was talking about the same thing.

18 A. You are not.

19 Q. All right. Well, you better explain
20 to me.

21 A. Well, the way I interpreted your
22 question was that you were specifically asking a
23 question relative to stocking, stocking on its own as
24 described in paragraph 28.

25 Q. No, my question -- with respect, my

1 question was not that. My question was related to
2 whether that area that we have been discussing with
3 those characteristics would...

4 My question was: Whether it was correct
5 that that area might never reach free to grow because
6 it would never meet the benchmark stocking standards
7 for any working group. So my questions have all been
8 in the context of these free to grow benchmark
9 standards. That was my question.

10 What I am asking you - and that's what
11 Document No. 17 is all about, which is what we asked
12 the question about in our interrogatory.

13 Now, I take the interrogatory answer to
14 mean that the pre-established norm which would compare
15 the results of a given stocking survey is determined by
16 the local manager; that is, at the local unit level
17 they have a discretion to vary from these stocking
18 standards which are part of the free to grow
19 assessment.

20 Isn't that what the answer tells me? If
21 the answer is wrong, that's fine, just correct it.

22 A. I am trying to.

23 Q. Okay.

24 A. At some point in time in the
25 development of a stand you can carry out a stocking

1 survey, okay. And so let's say I, as a manager, make
2 the decision to carry out a stocking survey and I want
3 to see how things are going and I compare the results
4 of my stocking survey to what we have called the
5 pre-established norm.

6 If my objective was I only wanted 60 per
7 cent stocking, then I would compare the stocking level
8 that I found to what I was trying to get. So I have
9 done my stocking survey. And three years later I now
10 decide that I want to do a free to grow survey, okay.
11 Forget about this comparison that I did two or three
12 years ago.

13 Q. Absolutely.

14 A. I come along and now do my free to
15 grow survey. The only way I can declare that area to
16 be free to grow is if it meets the regional benchmark
17 standard or if I had an approved variation to the
18 regional benchmark standard in a management plan.

19 Q. All right. That's my question: How
20 does that approved variation come about? Is that
21 what's being referred to in this answer is where it is
22 determined by the local manager?

23 A. The answer that we gave, with
24 respect, was dealing specifically with the stocking
25 condition survey and it has nothing do specifically

1 with the survey that may take place two or three years
2 later called a free to grow survey.

3 Q. Well, with respect, Mr. Gordon, the
4 question was: Is the pre-established norm for stocking
5 benchmarks produced as Document 17, which is the free
6 to grow benchmark standards -- the question related
7 specifically to the free to grow standards.

8 Anyway, without worrying about that, what
9 you are telling me, as I understand it, is that in
10 order to reach free to grow there is no discretion in
11 declaring an area free to grow in applying those
12 stocking standards or any -- I will extend my question
13 to any of the other standards that are set out in the
14 free to grow surveys?

15 THE CHAIRMAN: Unless there has been an
16 approved variation.

17 MR. CAMPBELL: Yes, yes, that's right.

18 Q. Unless there has been an approved
19 variation; is that correct?

20 MR. GORDON: A. That's correct.

21 Q. How does a variation get approved?
22 Where is that decision made in the hierarchy of MNR
23 management that you have explained to us; is it at the
24 unit level?

25 A. Well, first of all, No. 1, the

1 benchmark standards just came out within the last year,
2 so I would assume that we haven't got any variations
3 approved at this time.

4 If a unit manager wants to propose a
5 variation, how would that take place. He would, in the
6 development of a draft plan, say what the variation
7 should be and present the rationale, it would go
8 through the review process, it would be subject to --
9 for example, if I wrote the plan as a unit forester, it
10 would be subject to the review by the forest management
11 supervisor, you know, and he would support it or not
12 support it for whatever reasons.

13 It would then go to the region where
14 professional forestry staff there would review it and
15 support it or not support it, and it would finally go
16 to Toronto where the plan would be reviewed from a
17 timber management perspective by Management Planning
18 Section and they would look at that also and, if they
19 agreed with it, then the Director of Timber Sales would
20 sign the plan and then you would have this variation
21 approved.

22 Obviously in that whole process, if they
23 disagreed with your rationale - and there may be good
24 reasons to do so - they would point that out to you and
25 you may have to change your draft plan.

1 Q. Sure. And would you agree with me,
2 just as we talked about in the NSR 4 and 5 and
3 untreatable areas, that in the course of timber
4 management planning that where a benchmark standard was
5 going to be changed - and obviously the principal
6 concern was where it was going to be lowered - that
7 that is an important -- or it is reasonable that the
8 public that are involved in that plan review process
9 should be advised that that step is being contemplated,
10 and the rationale and the judgments behind it?

11 Would you agree that that's a reasonable
12 thing for the public to be told who are involved in the
13 process?

14 A. Yes.

15 Q. And that obviously having told them,
16 that's a reasonable matter on which the forester may
17 well be interested in whatever input an informed member
18 of the public might have on that matter?

19 A. Yes.

20 Q. Thank you.

21 Now, we have been talking about free to
22 grow and NSR surveys and just to give a little
23 background, as I understand it, both free to grow and
24 NSR surveys are mandatory.

25 Free to grow surveys are required if an

1 area is to go back into the MAD base, and NSR surveys
2 are mandatory prior to the signing of a forest
3 management agreement; is that correct?

4 A. Yes.

5 Q. Does that mean that the NSR surveys
6 are done every five years under the proposed process
7 that's before this Board?

8 A. No.

9 Q. Is it the 20-year cycle?

10 A. No, they are done once.

11 Q. Once?

12 A. They are done once. The formal NSR
13 survey for a forest management agreement area is done
14 once and that's before the FMA is signed so that we can
15 determine the FMA holder's obligations relative to the
16 treatment of NSR 2 and NSR 3 and, as well, determine
17 what areas are free to grow and, therefore, it can be
18 part of the MAD land base. So they are only done once.

19 Q. All right. What happens when the
20 five years are up and you want to do -- you want to
21 sign the next agreement; is it 20 years or five? What
22 am I getting wrong here?

23 MR. ARMSON: A. If I may, Mr. Chairman.
24 There is not a resigning of the agreement. The
25 agreement is executed conditional upon a five-year

1 review at which time, according to the terms of the
2 agreement, the Minister will decide whether the
3 obligations of the agreement holder have been met.

4 If they have, the agreement is then
5 extended a further five years. So it becomes what has
6 been termed an evergreen agreement.

7 So that we start from year one, go five
8 years, at year five there is 15 years life left in the
9 agreement. At that point, if the Minister considers
10 the obligations met, it is extended a further five
11 years. So there is now 20 years ahead of the agreement
12 holder again.

13 If the terms or the obligations are not
14 met but are considered that they can be dealt with, the
15 Minister will then set the conditions and period
16 during -- of the activities to take place to meet the
17 obligations that have not been met, and the agreement
18 then, if you like, winds down.

19 If at year five some specific terms to be
20 met are specified that will take three years to
21 accomplish, then that agreement then, if you like,
22 reduces to, in this case, a 12-year agreement. If then
23 upon consideration and review of the -- if they have
24 then been met, then it goes back up to the five year --
25 with a five-year extension again.

1 Now, if the conditions cannot be met, or
2 obligations cannot be met, then the Minister may
3 terminate the agreement, but the agreement is not
4 resigned as such.

5 Does that answer your question, Mr.
6 Campbell?

7 Q. Yes, I think so. As I understand it,
8 then, and subject to this kind of policing mechanism
9 that you talk about, the agreement is -- I thought it
10 was contemplated that it would have a term of 20 years,
11 in effect, but that is in effect renewed on an
12 overlapping basis every five years, and the purpose of
13 the 20 years is really to set an appropriate planning
14 horizon for that unit.

15 Is that a fair characterization?

16 A. That's correct. And it is, in
17 effect, extended for five years if the obligations have
18 been met.

19 Q. I see.

20 A. Not renewed.

21 Q. Okay. Now, if we can talk about the
22 free to grow survey. In the evidence you have
23 described three tests for free to grow: Minimum
24 stocking, one metre height, and free from competition.

25 Am I correct in that, that those are the

1 tests for free to grow?

2 MR. GORDON: A. That is correct.

3 Q. All right. And just to make sure I
4 have got these all covered, in terms of the discretion
5 or mandatory nature of those benchmarks, unless they
6 are varied by the process that we have discussed for
7 stocking, they are mandatory in order for an area to be
8 declared free to grow; is that correct?

9 A. That is correct.

10 Q. And I was a little confused in
11 reading the Timber Management Planning Manual about
12 what appeared to be a fourth test. And if you could
13 turn to page 197 under the heading: Free To Grow
14 Surveys, in the second paragraph in the second line
15 towards the end it says:

16 "Its mean growth rate..."

17 That is, the stand's:

18 "Its mean growth rate meets the
19 appropriate standards in Table C1."

20 Is that another mandatory standard for
21 free to grow, another mandatory requirement?

22 A. I think Mr. Armson perhaps can give
23 you the best answer there.

24 MR. ARMSON: A. Yes, Mr. Campbell. At
25 the time of the setting up of the forest management

1 agreements, the manual which has been referred to, the
2 forest managment manual, set forth a standard which
3 included the current height growth and the preceding
4 year's height growth and this applied and is in the
5 agreements, and that is why it is mentioned on page 197
6 in the section dealing with forest management
7 agreements, because that condition is still in effect
8 on those agreements to which it applies.

9 Q. I see. But in terms of from what
10 might be called the policy guidance level, the tests
11 that are going to be implied to free to grow, that has
12 now been removed from the test?

13 A. That is correct.

14 Q. Why was that?

15 A. Well, I wasn't party to the
16 discussions. I believe that there was some concern by
17 Ministry staff that the amount of time that would be
18 taken, the effort that would be required to in fact
19 determine those kinds of criteria in terms of current
20 and past measurement would be very major and I think
21 that is probably the reason. But I wasn't party to the
22 final decision.

23 Q. All right. Was anyone else in this
24 panel party to that decision?

25 MR. GORDON: A. No, I was indirectly...

1 Q. And, similarly, do I understand that
2 it is been adjusted that in dropping the growth rate
3 standard that -- later on in that paragraph, where it
4 says:

5 "If the crop species for reasons other
6 than competing vegetation of other
7 species is unable to meet the measures of
8 growth rate, it may be accepted as FTG
9 when it has achieved two metres in
10 height."

11 So that rather than running around and
12 worrying about growth rate on a year-to-year basis, the
13 proxy for that, it seemed to me, was it had to reach
14 two metres. And has that been dropped as well, I
15 gather?

16 MR. ARMSON: A. I believe it has. If I
17 may again explain the reason.

18 When we were looking at rates of growth
19 it became evident that on certain kinds of condition
20 there might not be competing vegetation but, due to the
21 soil properties and so on, the growth of rate - and
22 this was particularly applicable to certain organic
23 soils with black spruce - would be such that the rate
24 of growth measures would not, in all likelihood, ever
25 be achieved, just inherently in the condition.

1 So we said: Well, if it is two metres
2 and it is growing, even though it may not be growing at
3 the rate of growth of the previously mentioned
4 standards.

5 Q. All right. But at least to the
6 extent that these things have fallen out of the
7 requirement now, would you agree that there is some
8 amendment required to this document?

9 A. Well, it is my understanding, Mr.
10 Campbell at pages 193 through to, I believe it is
11 somewhere, 208 or -9, somewhere in there, that this is
12 the appendix that deals only with the forest management
13 agreement ground rules. It does not deal with anything
14 other than in those areas.

15 Q. Well, but having looked at those
16 ground rules and seeing that there is a test here that
17 , as I understand it, no longer is going to be applied,
18 would you agree that the document should be amended to
19 reflect that?

20 A. Yes, I think -- at least it should be
21 specified as the period over which these would apply
22 and then no longer apply. Yes, I agree.

23 Q. Yes, okay. Thank you.

24 THE CHAIRMAN: Mr. Campbell, do you want
25 to find a convenient time we will break for lunch.

1 MR. CAMPBELL: This is as good a time as
2 any, Mr. Chairman.

3 THE CHAIRMAN: Very well.

4 MR. TUER: How long do you intend to sit
5 this afternoon?

6 THE CHAIRMAN: Well, it sort of depends
7 to some extent, Mr. Tuer, on where Mr. Campbell is
8 going in terms of his continued cross-examination.

9 Do you have any sense at this point, Mr.
10 Campbell, where you are?

11 MR. CAMPBELL: It has been going along a
12 little bit faster since the break, Mr. Chairman, and I
13 hope that can continue, but I expect that -- as I say,
14 it has taken much longer than I had anticipated and I
15 expect I might well be much of the afternoon.

16 MR. TUER: Well, I had intended to catch
17 a plane at five, six or eight o'clock. It would be
18 helpful if I had some sense of whether we are going
19 beyond five o'clock.

20 THE CHAIRMAN: Well, I think we would
21 like, if we can, to complete Mr. Campbell's examination
22 today and then be able to start off with the next panel
23 tomorrow -- I'm sorry, we have reply.

24 MR. FREIDIN: There is going to be
25 re-examination and also, as you recall, Mr. Cary was

1 going to deal with this area near Dryden that he had
2 associated with.

3 I understand that that could take upwards
4 of an hour for the presentation. Again, as I
5 understand it, there will be a number of maps and
6 things to be used and there was the right of people --
7 they reserved their right to cross-examine on that
8 matter, and I was hopeful that that
9 cross-examination -- that right could be exercised
10 immediately after the evidence.

11 THE CHAIRMAN: And then Mr. Castrilli
12 might have a further shot at some of that evidence
13 depending on what comes out with Mr. Cary's --

14 MR. FREIDIN: That's what I mean. That
15 right of re-examination which was reserved was in fact
16 in relation to the evidence to be given by Mr. Cary on
17 the Dryden area.

18 So I am saying -- I am assuming that that
19 cross-examination will take place immediately after Mr.
20 Cary gives his evidence either today or tomorrow. So I
21 am saying we won't finish today, and if Mr. Campbell's
22 estimate is short, we may not end it until late
23 tomorrow.

24 MR. CASTRILLI: Mr. Chairman, it is a
25 rare opportunity for all counsel to be standing at the

1 same time.

2 I haven't seen anything of what it is Mr.
3 Cary intends to produce in re-examination, and I quite
4 frankly may wish to take some time to go over it with
5 my experts. I am not, at this point, in a position to
6 advise the Board that I am prepared to cross-examine
7 tomorrow.

8 THE CHAIRMAN: Well, that is a fair
9 comment. You certainly should have the opportunity to
10 be able to assess the evidence upon which you want to
11 cross-examine.

12 Well, Mr. Tuer, I had contemplated that
13 we would sit today until six o'clock, if necessary, to
14 try and finish off this panel, but it looks like we
15 will not finish today under any circumstances.

16 So I would imagine that we will probably
17 break five, five thirty, in that range and then
18 continue on tomorrow morning.

19 MR. TUER: Very well. Five o'clock would
20 accommodate me.

21 THE CHAIRMAN: Are you not planning to be
22 here tomorrow?

23 MR. TUER: Well, see, we arranged our
24 affairs on the theory that we were going to start a new
25 panel tomorrow.

1 THE CHAIRMAN: All right. Well, if we
2 are going to go into tomorrow in any event, then
3 perhaps we can state at this time, to accommodate Mr.
4 Tuer, that we will end at five today and we may just
5 have to pick up the extra hour tomorrow.

6 MR. TUER: Thank you very much, Mr.
7 Chairman.

8 THE CHAIRMAN: We will break until two
9 o'clock. Thank you.

10 ---Luncheon recess at 12:33 p.m.

11 ---Upon resuming at 2:00 p.m.

12 THE CHAIRMAN: Thank you, ladies and
13 gentlemen.

14 Mr. Campbell?

15 MR. CAMPBELL: Thank you, Mr. Chairman.

16 Q. Gentlemen, there are sort of some
17 odds and ends of questions to round this area of
18 competition and free to grow survey and discretion, and
19 so on, that I want to pick up.

20 First, as I understand it, in that test
21 that relates to free to grow that relates to
22 competition, there are only standards set out for
23 making a judgment about competition in the northeast
24 region; and in the northwest, northcentral and north
25 region, that basically is left to the judgment of the

1 foresters in the unit; is that correct -- maybe the
2 unit manager, I am not quite sure what the terminology
3 is.

4 THE CHAIRMAN: Mr. Campbell, can you
5 assist the panel at all into something that is written
6 down in one of the documents; is there anything?

7 MR. CAMPBELL: Yes. For instance, I'm
8 looking at page 182 of Panel 4, and if I look under
9 competition -- the heading: Competition, the northern
10 region, there is no column that gives a standard to
11 measure competition, I believe there is only a
12 northeast region, and if you look on page 182 under:
13 Competition it simply says:

14 "The degree of competition that will
15 impede growth can be outlined in a
16 management plan or can be determined by
17 the forest manager."

18 Q. I guess my simple question was
19 just -- am I right that the only place the standard is
20 is for the northeast region, and I am really speaking
21 only here of northwest, northcentral, north and
22 northeast. Of those four, there is only a specific
23 standard for northeast and, in the other areas, it is
24 left to -- it is left to the manager's discretion?

25 MR. GORDON: A. That's correct.

1 Q. All right. So that in this sort of
2 mandatory discretionary dialogue, it is mandatory that
3 they consider competition before declaring an area free
4 to grow, but it isn't the same kind of standard as the
5 one metre that is inflexible, this one it's a
6 discretionary judgment?

7 A. That's correct. The professional on
8 the unit must make a decision as to whether or not the
9 area in question is free from competition.

10 Q. Okay. Now, Appendix C deals with FMA
11 ground rules, and that is Appendix C to Exhibit 7, the
12 Timber Management Planning Manual.

13 I was curious as to whether there were
14 similar ground rules that were applicable on Crown or
15 company -- for Crown or company units? The manual, as
16 I understand it -- maybe first you could just confirm
17 this one, Mr. Gordon. The manual applies to Crown,
18 company, and FMA units?

19 A. That's correct.

20 Q. All right. Then --

21 A. Then because of the legal agreement
22 we have with the FMA holders and those agreements being
23 set up before this manual was put in place, it was
24 necessary to have a special appendix in the manual to
25 recognize the legal agreements that we previously had

1 and have in place with the FMA holders.

2 Q. All right. But those ground rules
3 cover a whole range of important items and I wondered
4 why it wouldn't make sense just to apply them, in
5 effect, to Crown and company units as well?

6 Mr. Armson?

7 MR. ARMSON: A. Yes. The reason for
8 that, Mr. Campbell, is that the agreement holder is
9 carrying out the activities for management. On the
10 Crown units, the Crown is responsible.

11 Some of the elements of the ground rules
12 have indeed been brought to the management planning
13 process for the Crown units, as in the silvicultural
14 ground rules, but the key -- the answer to your
15 question is because at the time of initiation of the
16 FMAs we wanted to have in the agreement a very clear
17 statement as to a number of items including the
18 silvicultural prescriptions.

19 Q. Yes. I guess my question is a little
20 more basic than that. Isn't it reasonable that what is
21 sauce for the goose should be sauce for the gander and
22 that the Crown and company units should be required to
23 operate to the same standards?

24 A. Well, I think in terms of
25 silviculture that has been done in the silvicultural

1 ground rules that are required for Crown management
2 units. Page 63 of the Timber Management Planning
3 Manual describes that and Table 4.11 on page 65, I
4 guess it is, is the format.

5 Q. Well, without going through it in
6 detail, is it your evidence that everything that is
7 required under the FMA ground rules is also required
8 for the Crown and company units?

9 A. Not in the format of ground rules.
10 For example, in the FMA there is a section dealing with
11 the kinds of operating cruises that are used and it is
12 specified there, whereas within the Ministry that would
13 be a matter determined internally within the Ministry
14 and not put in the ground rules necessarily.

15 Similarly, there were, if I recollect in
16 the ground rules, conditions relating to specific areas
17 that may, or for example in terms of use, land use that
18 were put in as either conditions or qualifications in
19 the FMA because they related to the tenure.

20 Really, the essence of many of the
21 elements in the ground rules of the FMAs, besides the
22 silvicultural statements or prescriptions, were items
23 that the agreement holders felt were important to
24 embody in an agreement that related to the conditions
25 of the agreement particularly as it dealt with tenure.

1 Q. Well, I guess the reason I am having
2 a little problem with your answer, Mr. Armson, is that
3 it seems to me that we are working our way at varying
4 rates of speed towards discussing a planning process in
5 which a planning team and members of the public,
6 various other interested and affected parties will be
7 asked to participate in a planning process that has, as
8 its objective, what is defined as the purpose of this
9 undertaking.

10 And it seems to me that some of the types
11 of things that are embodied in those ground rules are
12 aimed very directly at achieving a satisfactory result
13 in terms of timber management activities, and I guess I
14 come right back to my basic question was:

15 If it's a good idea for industry to have
16 to do all of these things under an FMA agreement, why
17 isn't it equally a good idea for them to be done on the
18 same basis as in Crown and company units in order to
19 ensure a consistency of data and have kind of a general
20 application to all timber management as opposed to
21 different rules depending on the happenstance of which
22 kind of unit you are involved in?

23 A. Well, I would agree, but I think if
24 you look at the contents of Appendix C you will see
25 that many of the elements that are in the ground rules

1 of the agreement holder are those that are very
2 specific to that kind of a situation.

3 For example, the phase-in, the nature of
4 surveys, operational surveys. There is an assessment
5 of stocking and free to grow surveys and, as we have
6 discussed, those are elements that had, as have you
7 said, two criteria that were somewhat different, but I
8 think that has been explained.

9 The requisition for nursery stock and
10 tree seed, that was a matter that was of importance and
11 is of importance to the agreement holder but, you
12 wouldn't put that in the ground rules for Crown units.
13 Do you follow me?

14 Q. Sure. I see that there would be some
15 like that, but let's take the example, for instance, of
16 NSR surveys. As I understand it, they are mandatory
17 for FMAs only; is that correct?

18 A. That is correct.

19 Q. And I understand, I think, what they
20 are used for in the FMA context, but I don't quite
21 understand why, when you are putting through a first
22 plan on a Crown or company unit, it isn't useful to
23 bring your baseline data up to the same level so you
24 can then do a comparison across the area of the
25 undertaking by doing an NSR survey on those areas as

1 well.

2 It will never be perfectly matched in
3 time, but you would get a lot closer to what we are
4 having a lot of trouble with which is a consistent data
5 set for the area of the undertaking.

6 A. Understood. I can't speak to how
7 many, but for many of the Crown management units we are
8 not dealing with a first management plan, we are often
9 dealing with a second one.

10 And in a number of Crown units - and I
11 can't tell you which ones nor how many - but I do know
12 that the NSR survey has been used on a number of Crown
13 units. That is my understanding. And as I say, I
14 can't -- and I think that that probably would have been
15 done at the -- I suppose because the unit forester or
16 the staff there felt that in that situation it was
17 appropriate.

18 The principle is a very simple one. If
19 you are bringing -- putting an area under a management
20 plan, as you have suggested, one of the principal
21 points in the agreement was the landowner, the Crown or
22 those representing would in fact look at what had --
23 the areas of land that had been depleted in the past,
24 however, and say: Jointly we are going to do something
25 about this. And I don't disagree with the principle at

1 all.

2 Q. All right. Then you look at the FMA
3 agreement, the agreement holder is required to treat
4 five per cent of the NSR 2 and 3 lands per year; is
5 that correct?

6 A. Well, yes, that is essentially it.
7 Over a 20-year period they have to treat all and on the
8 basis of five-year review, yes, at the rate of five per
9 cent a year.

10 Q. That is sort of the average?

11 A. Yes, that's correct.

12 Q. Wouldn't it make sense for the Crown
13 sort of to impose that obligation on itself as well?

14 A. Yes, and I think it has in specific
15 areas. What you are asking is: Shouldn't it be
16 mandatory. I think --

17 Q. I guess if I was the industry I would
18 be wondering, why are you making me do all these things
19 that you don't do when you are taking your dollars out.

20 A. Well, the NSR surveys are joint
21 surveys, so we are jointly doing them, it is not just
22 the industry on its own.

23 I think there are Crown units,
24 situations, yes, where it would be appropriate, but I
25 also believe that there are Crown units where by virtue

1 of documentation and past plans it really isn't needed.
2 So to make it mandatory immediately poses a situation
3 of where you make it mandatory and someone says why are
4 we doing it when we already have the relevant
5 information by whatever means.

6 MR. MARTEL: Can I ask a question? For
7 uniformity though across the province, for
8 understanding amongst your own staff so if they move
9 from one type of unit to another type of unit, as the
10 foresters move around, it would make a lot more sense
11 to get rid of -- because everywhere we have talked
12 there is jargon that is different, there seems to be a
13 real problem of uniformity in many, many areas in the
14 Ministry, if I can say that, and wouldn't it make more
15 sense to have as much as possible, for understanding
16 and so on, uniformity across the whole board?

17 MR. ARMSON: I would agree, but
18 consistency for consistency sake wouldn't seem to me to
19 be the rationale. I agree and I think I have made this
20 point earlier in...

21 MR. MARTEL: What are the circumstances
22 that prevent that, Mr. Armson? Let's say, what would
23 you cite as an example as of you wouldn't have the same
24 sort of ground rules apply?

25 MR. ARMSON: Well, could I speak to the

1 NSR survey because I think that maybe is a concrete
2 example. There are Crown units, and I am familiar with
3 at least one of them and certainly -- where by virtue
4 of (a) the documentation, the re-inventories that have
5 been undertaken, in fact there is no need to have an
6 NSR survey, they in fact have all the information that
7 we would have gathered otherwise in an NSR survey.

8 So to make it mandatory immediately begs
9 a question of why would you do it there.

10 MR. MARTEL: But you have that
11 information then. Why would it be -- I don't think
12 anyone is suggesting that you -- since you have the
13 information, that is a given, it is done.

14 MR. ARMSON: Yes, but it wouldn't be in
15 the format and I think this is really the crux of the
16 answer.

17 If I were to go to that unit or you were
18 to go to that unit, you wouldn't see a map with
19 categories 1, 2, 3, 4, and 5 because they didn't do it
20 that way and in that sense, therefore, you cannot add
21 up and if you were to say by making it mandatory
22 aggregate all the areas of category 4 and 5, which is a
23 reasonable question, from all the units.

24 FMAs -- FMAs, yes, we have done it, but
25 to do that for all the Crown units would, I think -- I

1 suppose you could do it, but one has to ask a question:
2 What is the purpose? If it is to merely have a table
3 showing all those numbers, I would seriously question
4 it.

5 MR. CAMPBELL: Q. Yes. I guess, Mr.
6 Armson, I am not suggesting that if you have got the
7 information you still have to send people out to get
8 the same information, that would obviously be stupid.

9 But it does seem to me that at some level
10 of management or examination of this matter, for
11 instance, this EA is supposed to come back in five or
12 six years - I forget what the number is - for another
13 Class EA, wouldn't it be nice at that time --

14 THE CHAIRMAN: Who are going to be the
15 participants, Mr. Campbell?

16 MR. CAMPBELL: I studiously avoided that
17 question, Mr. Chairman.

18 MR. CAMPBELL: Q. Wouldn't it be nice at
19 that time if in the interim, as plans were prepared on
20 all these different kinds of units, everybody had taken
21 their known information and said:

22 All right, our NSR breakout would look
23 like this, so that at least - although with some
24 adjustment for time because it will never be done on
25 the same day or maybe even the same year - we would be

1 much closer to having a consistent base of information
2 across the area of the undertaking which is what we
3 have been having, with respect, an enormous difficulty
4 with today?

5 MR. ARMSON: A. I agree, and I would
6 suggest, Mr. Campbell, that the putting in place of the
7 manual which has such things as the areas, the areas
8 depleted, the manner of their depletion, the areas --
9 the proposed working group or forest unit, the kind of
10 treatment and the untreatable area, that in fact over a
11 period of time you will in fact have that.

12 The problem lies in -- and you are quite
13 right, right now, time now, two years since that has
14 been put in place we have management plans out there
15 and areas that are in various stages. Once all the
16 area of the undertaking and the units are on these
17 plans, yes, the only differences then will be whether
18 you are using the data from the plan "x" that is three
19 years into its plan by this way or some areas that are
20 in year two or whatever.

21 But I don't think that doesn't pose the
22 problem -- I think what we are saying, and I don't
23 think there is any question here from any of the
24 witnesses about the problems of consistency in
25 terminology and certainly in the data and

1 documentation, that this indeed represents our sincere
2 effort to in fact move to that. The problem is we
3 can't demonstrate that now for the reasons that I have
4 stated.

5 Q. All right. So that apart entirely
6 then from whether we call it an NSR survey or whatever,
7 as I understand what you are saying, by the time that
8 this manual is applied on all of the units, there will
9 be a much more consistent base of data which will avoid
10 the kinds of problems we have seen here?

11 A. Absolutely, and I would suggest that
12 anyone at the five-year mark or whenever, who then can
13 demonstrate that that data does not exist has a very
14 valid reason for questioning it.

15 Q. This will be when we are all in the
16 full flush of old age.

17 THE CHAIRMAN: Mr. Campbell, isn't the
18 crux of this case to some extent the fact that we have
19 been looking for some time now at what has happened in
20 the past, going way back, sometimes decades, and have
21 discovered that the datakeeping and the recordkeeping
22 and the information and databases are not what we would
23 like them to be, which is one of the purposes of this
24 undertaking in the first place, to put into effect a
25 planning process which will correct some of those

1 things.

2 And I fully appreciate that it is
3 necessary to go back to see where you have been in
4 order to be able to judge against some kind of standard
5 or benchmark where you are going, and I presume that
6 that is part of the purpose in reviewing the past in
7 the detail that we have. Also, so that the Board can
8 understand the terminology and the methodology that was
9 used in the past to more or less ascertain whether or
10 not what you do in the future and what is approved in
11 the future is appropriate.

12 But that will be an existing problem and
13 it seems to me, and I think the Board has discussed it
14 from time to time, that we have to start somewhere and
15 where we are starting in terms of correcting past
16 problems is with this planning process.

17 MR. CAMPBELL: Oh Mr. Chairman, I agree
18 with every word you said and it is certainly -- the
19 purpose of our questions around this and in this
20 particular area is to try and understand whether or not
21 the systems that are being put in place will avoid the
22 kinds of problems that have arisen where we simply in
23 many, in our view, important areas, don't have any kind
24 of what I would refer to as a relational database that
25 let's us see what happens when you do certain things.

1 THE CHAIRMAN: I guess what I am trying
2 to say is that the focus of the hearing, as at least I
3 see it, is on developing an appropriate future planning
4 process as opposed to castigating the parties for what
5 has occurred--

6 MR. CAMPBELL: Absolutely.

7 THE CHAIRMAN: --in the past.

8 MR. CAMPBELL: Absolutely.

9 THE CHAIRMAN: We all realize, I think,
10 that mistakes have been made in the past and, I mean,
11 nobody is impervious to making mistakes, and that the
12 thrust of where we are going here is not so much on the
13 past but very much towards the future. I mean, would
14 you agree with that?

15 MR. CAMPBELL: I agree with that 100 per
16 cent. And I hope my cross-examination has not created
17 any impression that we have any interest in castigating
18 anybody.

19 But if there are problems, it is
20 important to understand their root and their cause so
21 that we can together, all of the parties here,
22 formulate useful suggestions to the Board that are
23 practical, that aren't unduly burdensome to the
24 professional forester in the exercise of his duties,
25 are not excessively expensive from an industry point of

1 view and protect the environmental interests, and that
2 is the goal upon which all of our cross-examination and
3 all of our participation in this hearing is aimed at
4 achieving.

5 Q. Now, to go from the sublime to the
6 ridiculous. In terms of the calculation of the amount
7 of treatment required, I think it has been pointed out
8 several times that it is five per cent of the NSR 2 and
9 3 areas, that is what proposed under the timber
10 management planning process; is that correct, five per
11 cent of NSR 2 and 3 is required to be treated on an
12 annual basis?

13 MR. ARMSON: A. That is in the forest
14 management agreement, not in anything else. That is in
15 the requirement under the agreement.

16 Q. Yes, I understand that. Now, can you
17 also agree with me or just confirm my understanding,
18 that it is not necessarily the NSR 2 and 3 hectares per
19 se that are treated; that treatment can take place on
20 anywhere in the management unit theoretically?

21 A. Yes, but the areas delineated as 2
22 and 3 are the first to be inspected for treatment and I
23 believe it was Mr. Gordon mentioned that where -- in
24 the obligation is for the amount to be treated and
25 where in fact - and this has happened over a period of

1 time, even five years - areas that were considered by
2 the survey to be, let's say, 3; that is, requiring
3 regeneration treatment, they may subsequently when they
4 come to look at it and say: Well, a part of that area
5 or all of that area in fact has that, somehow or other
6 we missed it, and passage of time can have a bearing on
7 that.

8 But that is -- apart from that, the areas
9 that are designated are the ones you go to first.

10 Q. That is as a matter of practice.

11 A. That's right.

12 Q. But there is nothing in the
13 agreement, as I understand it, that says -- that ties
14 the treatment obligation to the NSR 2 and 3 areas which
15 are the basis of their calculation?

16 A. In an absolute sense, no.

17 Q. Thank you.

18 A. You are correct.

19 Q. And what you are saying is that just
20 in a common sense way they are strong candidate areas
21 for the actual treatment.

22 A. Well, they are more than strong
23 candidate, they are the candidates unless there is
24 reason not to treat those areas.

25 Q. Now, is that set out somewhere?

1 A. No, that is not set out anywhere.

2 Q. So that at least in a theoretical
3 sense, the proposition I put to you is correct, that it
4 is possible - you say very unlikely - but possible that
5 the treatment could take place entirely off NSR 2 and
6 3?

7 A. It is possible, yes, over those lands
8 that were surveyed.

9 Q. Okay. Now, I take it there are cost
10 differentials in different types of treatments?

11 A. Yes, there are.

12 Q. And they can be significant?

13 A. Yes. The agreements themselves
14 specify the costs.

15 Q. Now, I have heard that and I would
16 just ask you to explain how the adjustments are made.
17 As I understand it, the treatment obligation is tied to
18 an area, that is hectares?

19 A. That's correct.

20 Q. And if some different treatment is
21 undertaken on some other area that is -- well, let me
22 back up.

23 When that obligation is set out in terms
24 of hectares, is there also a calculation that is done
25 that says: In the course of this agreement you will do

1 this much of this kind of treatment that will cost this
2 kind of dollars, so we expect the treatment obligation
3 to be worth, say, \$5-million?

4 A. No.

5 Q. What adjustment is made if in fact
6 the treatment that is undertaken is of a substantially
7 less expensive nature than what might have been
8 originally contemplated at the time the agreement was
9 negotiated?

10 A. Well, if I may, I believe I explained
11 to the Board this at a previous panel--

12 Q. I am sorry, if that is correct, I
13 will just go and read the transcript.

14 A. --in the setting up of the rates. In
15 the agreement, a schedule of the agreement specifies
16 the rates of payment at the time of an execution of the
17 agreement and these rates are then revised at the
18 five-year review.

19 But the rates themselves, apart from the
20 rates for planting and seeding -- or planting, I should
21 say not the seeding, are based on the cost to the
22 Ministry for doing comparable work in that same area.
23 This was the basis.

24 Q. All right, I am sorry. I think you
25 misunderstood my question. I have understood that, I

1 have read that part of the transcript.

2 What I don't understand is: Clearly, a
3 company that is signing an agreement, and it looks at
4 the rates, looks at the areas it has got to treat, in
5 the end what it's quite properly worried about is how
6 big a cheque do I have to write as a result of that
7 obligation, what are my overall costs going to be?

8 Now, there is a substantial cost
9 difference in types of treatments that can be
10 undertaken. Is there any adjustment mechanism within
11 the agreement that allows for the fact that a company
12 might choose, for entirely legitimate reasons, to
13 undertake a very much less expensive type of treatment
14 in place of a very much more expensive one and thereby
15 get a financial benefit while meeting its treatment
16 obligations?

17 A. The treatments are specified. We
18 come back to the silvicultural prescriptions, that is
19 where you find that the prescribed treatments for given
20 situations, including the NSR, and those rates apply.

21 If a company -- to answer your question,
22 if a company carrying out the obligations according to
23 the prescription and meeting the standards that are
24 there, does it for something less than the payment per
25 unit area, then that happens. If it costs them more,

1 then that also happens.

2 Q. All right. But are all the
3 prescriptions for the various areas -- they surely
4 can't all be known at the time the agreement is signed.

5 A. The prescriptions are for working
6 group and by what are described as site conditions as
7 best they are defined for each area, that is whether
8 they are organic soils of a certain depth and so on.

9 These are in the prescription and, as
10 indicated, also in the Timber Management Planning
11 Manual. And those prescriptions then apply to all
12 those conditions in the area including areas that would
13 be designated as NSR 2 or 3.

14 Q. So what you are saying is that there
15 is sufficient information available at the time the
16 forest management agreement is signed for a company to
17 look out over the unit and say: I am likely to have to
18 spend this much money because I am likely to be cutting
19 in these kinds of areas, and that's all part of the
20 negotiation with them?

21 A. There is no negotiation of price
22 basically. The prices -- the cost for the treatments
23 are established by the Crown.

24 Q. I understand that, Mr. Armson, that
25 has been dealt with before as to how the actual number

1 is applied.

2 The kind of proposition I am putting to
3 you is: Within a unit you may think that the sensible
4 way to treat, say, 25 per cent of the area that's
5 likely to be cut over the term of the agreement is
6 method "x" which costs \$10 a hectare, and as it turns
7 out in fact method "y" is applied it will costs \$5 a
8 hectare. Who gets the windfall?

9 A. I think -- it isn't a question of
10 method "x" or method "y", it is a specification in the
11 agreement. If in carrying out that, as I indicated,
12 the company can do that under the cost which is set,
13 which is fixed based on what it costs the Ministry to
14 do it in that same general area, then that is -- to
15 your word, that is something they have gained.

16 If it costs more --

17 Q. What I am looking at though is the
18 situation where they actually -- they end up doing a
19 lot less of an expensive kind of treatment --

20 THE CHAIRMAN: Well, Mr. Campbell, why
21 can they do that if it is prescribed and they have to
22 carry out that silvicultural method of treatment?

23 If they do less than that or do some
24 other method they would be breaching those
25 prescriptions and, presumably, they would have to get

1 the consent of the Crown to breach them or have them
2 amended or have them changed in some fashion.

3 MR. CAMPBELL: But, Mr. Chairman, I don't
4 understand how that can be -- that situation can be.

5 I thought I heard the witnesses basically
6 explain that at the beginning of the agreement there
7 was no effort to say: There is going to be this kind
8 of cutting on this kind of soils and, therefore, the
9 treatment classification is this for this many
10 hectares. I thought Mr. Armson said that wasn't done.

11 MR. ARMSON: On the contrary, I in fact
12 specifically said that the ground rules containing the
13 silvicultural prescriptions which -- have to be set in
14 place before the agreement can actually be executed in
15 the first place,

16 MR. CAMPBELL: Q. All right.

17 MR. ARMSON: A. If I may, and when the
18 agreement is up for extension, we will not extend it
19 unless those ground rules, the revised ones, are again
20 in place and approved by us.

21 Q. So what you are saying is that it is
22 quite possible at the time the agreement is signed, or
23 just prior to the agreement being signed, for somebody
24 who takes a look at the soils maps and all the
25 information that you have already told us is available

1 on the individual unit, takes a look at the
2 prescription, takes a look at the cost, if they wanted
3 to they could go through an exercise and say: All
4 right, if we do cutting in this kind of area it will
5 result in this kind of prescription which will result
6 in this kind of cost and they could work that out as to
7 what the total dollar obligations might be under a
8 given scenario?

9 A. The company, I have no doubt, looks
10 at the prescriptions that are agreed to and then looks
11 at how best they can achieve the undertaking of
12 carrying out of those obligations and how best they can
13 do that in an economical fashion.

14 Q. All right. But I don't think --
15 again, I don't quite think that's responsive to my
16 question. My question was: You have got an area of
17 the unit--

18 A. Yes.

19 Q. --and just before the agreement is
20 signed, what you are saying, it is possible to say:
21 All right, we can divide this unit notionally up into a
22 whole bunch of different areas that are likely to give
23 rise to that kind of prescription for that kind of
24 area; right?

25 A. Who is saying this?

1 Q. For the purposes of my question it is
2 irrelevant.

3 A. Well, I think it is --

4 Q. I just want to know if it is
5 possible, okay. I mean, I sort of would expect that
6 both you would do it and the company would do it so
7 that you can kind of have some sense of the money that
8 is involved.

9 THE CHAIRMAN: Isn't that the subject
10 matter of the agreement itself, that the area is
11 divided up into certain sectors that --

12 MR. ARMSON: If I might, I think I can
13 answer. The unit forester for the area, before it
14 becomes an FMA and the company foresters, both of whom
15 are knowledgeable about the area, the unit forester from
16 the Crown who has undertaken and carried out, he and
17 his staff, various silvicultural treatments know the
18 kinds of conditions, they know what they have done,
19 they know what it cost and they know in -- just greater
20 or lesser degree what the results of that are. They
21 know certainly the short-term results.

22 So in the first instance the setting of
23 the -- the setting down firmly of prescriptions is
24 based, yes, on a joint knowledge of the area, the
25 conditions and in fact what has been accomplished and

1 can be accomplished to date.

2 In fact, in the very first FMAs one of
3 the first things that happened were for the company and
4 Ministry foresters to go out and for the Ministry
5 foresters to show company foresters what they had done,
6 the kinds of equipment and so on. It was very much a
7 learning process for the companies at that stage and
8 so it was based on joint knowledge.

9 Now in that sense, therefore, and you are
10 correct, that when the Ministry forester and the
11 company forester look at the various conditions, we
12 initially wanted to get, for example, a balanced, if
13 you like, price cost for site preparation. In other
14 words, if there were high cost areas and low cost
15 areas, what was the relative proportion and what was
16 the relative proportion that they anticipated in the
17 next five years and see if you could come up with one
18 cost, rather than get into: We use this on this area,
19 this on this area, and that over there, and it gets
20 into a very complicated process.

21 We said try for a relatively single cost.
22 It wasn't always possible, but that is what was tried.
23 Now, in that sense, I believe -- does that answer your
24 question as to what areas were looked at and what was
25 the basis for arriving at the judgment?

1 MR. FREIDIN: I feel like I am in school,
2 Mr. Chairman, I want to --

3 MR. CAMPBELL: Feel free, I have seen you
4 vibrating for a while here.

5 THE CHAIRMAN: Okay, Mr. Freidin--

6 MR. FREIDIN: It worked once, maybe it
7 will work again.

8 THE CHAIRMAN: --you take a shot at this
9 now.

10 MR. FREIDIN: Mr. Armson, when in fact
11 you identify that a certain area of NSR lands has to be
12 treated and you have got to treat that certain area
13 within 20 years, is there an objective that you were
14 trying to achieve on those lands? What are you trying
15 to do to the lands which are being treated?

16 MR. ARMSON: The objective is to bring
17 them back into the production forest system through
18 being classified as FTGL down the line.

19 MR. FREIDIN: So they have to be free to
20 grow; that's the objective of the treatment?

21 MR. ARMSON: That's correct.

22 MR. FREIDIN: If the company decides that
23 the method that it wants to use to get to that is
24 method "x" and it turns out that method "x" doesn't get
25 it to be free to grow, what is the consequence, if any,

1 to the company?

2 MR. ARMSON: They lose that from the
3 production base and, more particularly, if it doesn't
4 meet the stocking standards at five years, they must
5 retreat.

6 MR. FREIDIN: And when they have to
7 retreat, when their choice of perhaps a lower cost
8 treatment doesn't meet that objective, who pays for the
9 retreatment?

10 MR. ARMSON: The company pays.

11 MR. FREIDIN: And if they have to do it
12 again and again, who pays for the retreatment?

13 MR. ARMSON: The company.

14 MR. FREIDIN: Thank you.

15 MR. CAMPBELL: Q. All right. I think
16 you have very neatly illustrated my point, which is
17 that if the company goes in and the -- I take from Mr.
18 Freidin's questions that the company does have a
19 discretion to substitute one kind of treatment in place
20 of another kind of treatment and -- I guess, if all
21 these things are agreed to ahead of time, isn't there
22 the possibility there that they have made a deal on one
23 basis but what actually gets done is quite different?

24 MR. ARMSON: A. Well, the question is:
25 What do you mean by the word treatment. If in fact

1 there is "x" dollars paid to -- if site preparation of
2 a certain standard is required and the company and the
3 conventional equipment that the Ministry is currently
4 using is equipment piece "y", if the company knows that
5 by using equipment "x" it believes it can carry out or
6 with a tractor of a different kind, whatever, and it
7 can carry that out and do it for some less cost, then
8 it goes and does it.

9 That doesn't give us -- they are still
10 meeting the obligations of the agreement.

11 THE CHAIRMAN: But they are following
12 that particular type of treatment although they are
13 using a different method to do it?

14 MR. ARMSON: Correct, they may use a
15 different piece of equipment.

16 THE CHAIRMAN: But the question is: Do
17 they have any discretion as to the type of treatment
18 they can use when I understood you to mean -- to say,
19 that the type of treatment is specified in the
20 silvicultural prescriptions at the outset?

21 MR. ARMSON: There is in most of the
22 ground rules, and I believe in all of them, there is a
23 statement concerning I believe 15 per cent of the
24 treatments can be at the discretion of the agreement
25 holders providing they put up front what they want to

1 to.

2 It was to encourage some innovation and
3 get, in fact, some more effective treatments, because
4 the idea was to lock them into a very tight arrangement
5 for five years would dismiss the notion that anything
6 improved over five years.

7 MR. MARTEL: Well, what you are saying
8 then is that you are going to do a certain area and
9 instead of planting actual trees, which is somewhat
10 more expensive than using seed, and the company decides
11 to use seed - I think that is what Mr. Campbell is
12 coming at - that in fact the cost for seeding is much
13 less than the cost for planting stock and, therefore,
14 there is a windfall he talks about. I think that's
15 what he is trying to get it.

16 MR. ARMSON: Well, if he had asked about
17 planting and seed, I could have given him a very quick,
18 direct answer.

19 MR. MARTEL: I just used that as an
20 example.

21 MR. CAMPBELL: Perfect example.

22 MR. ARMSON: Well, I think it is an
23 example in which the ground rules would specify whether
24 it would be planted or seeded, that's very clear.

25 MR. CAMPBELL: Q. And before that

1 evergreen five-year term, but before each term in the
2 course setting out what is going to happen over the
3 next five years, it would be defined: That's what you
4 are going to do, you are going to plant trees, you are
5 not going to seed, and they don't have the option then
6 to make the choice--

7 MR. ARMSON: A. NO.

8 Q. --that Mr. Martel and I both asked
9 about.

10 A. I wouldn't want to say there aren't
11 some ground rules where they in fact have agreed that
12 you do have an option, but basically it is specified as
13 to whether it is to be site prepared and planted, site
14 prepared and seeded or -- unless as always in the case
15 of NSR, you are not dealing with any other form of
16 treatment essentially.

17 Q. Okay. All right, and I can take from
18 that, apart from some exceptions around the edges,
19 that's the basic rule, that the method of treatment is
20 mandatory and that's it?

21 A. The prescriptions are there to be
22 carried out, yes.

23 Q. And the prescriptions include a
24 method of treatment?

25 A. They specify the method of site

1 preparation and regeneration.

2 Q. All right, thank you. So that any
3 notion that I had about there being any sense in
4 considering some requirement for readjustment is not
5 pertinent because those circumstances just never arise,
6 is what you are saying?

7 A. That's not the point. I am not quite
8 sure what you mean by readjustment. Some time during
9 the agreement for a readjustment?

10 Q. Yes.

11 A. Well, the ground rules can be amended
12 if both parties agree to the amendments.

13 Q. And do the financial considerations
14 sometimes come into those amendments? Take the seeding
15 and planting example, if there was an amendment --

16 A. No, I don't believe that that has
17 come into it. The rates are set at the beginning of
18 five years and certainly the companies have often made
19 the point that inflation rates have gone up much
20 greater than costs of --

21 Q. So, in effect, it would be taken care
22 of automatically because if it is substituted that
23 rate is specified by the agreement for the seeding as
24 opposed to the other?

25 A. Whatever is in the agreement is held

1 to.

2 Q. Okay. Is 5 per cent of the NSR 2 and
3 3 classification - I am speaking in terms of area
4 here - as an average level, is it usually greater or
5 lesser than the number of hectares that are actually
6 cut in a year on an average basis?

7 A. I don't believe there is any
8 relationship. The NSR treatment obligation is not in
9 any way linked to area harvested.

10 Q. Well, I guess that's the question,
11 and I take it you believe it should not -- the
12 requirement to treat in terms of area, I take it you
13 would say should not be linked in any way to the area
14 harvested?

15 A. Well, if I might refer the Board to
16 Exhibit 180. The NSR is a recognition by both the
17 Crown and the industry and the companies involved that
18 there are areas which, because of past happenings,
19 should be brought back into production and we have
20 jointly said: We have an obligation to do that, and
21 that was the purpose.

22 That is totally separate from what we do
23 in terms of the ongoing harvesting process and dealing
24 with the depletions due to harvesting and other natural
25 causes after the agreement has been executed.

1 Q. You mean there are treatment
2 obligations over and above the requirement to treat an
3 area equal to 5 per cent of NSR 2 and 3?

4 A. The silvicultural prescriptions are,
5 in fact, those treatments, that's where it is
6 prescribed for existing areas.

7 Q. I feel like two ships in the night
8 here.

9 I am interested in getting a handle on
10 the way the agreement works to require an area of
11 treatment, and I had understood your evidence to be
12 that if you looked at, on an ongoing basis, the area
13 that was required to be treated, it was an area on
14 average equal to five per cent of the NSR 2 and 3 as
15 developed at the beginning of the agreement?

16 A. That's right.

17 Q. Am I wrong?

18 A. At time zero, the NSR lands are
19 defined, we have gone into that, and there is an
20 obligation to treat categories 2 and 3 at a rate of at
21 least 5 per cent per year, based on a five-yearly...

22 Q. All right. Are there any other
23 treatment obligations that expand the area treated over
24 and above that amount?

25 A. Oh well, the ongoing annual ones in

1 relation to the areas harvested each year.

2 Q. So that there is a requirement to
3 treat each hectare harvested?

4 A. There is a set of prescriptions that
5 deal with the existing harvested area. There is no
6 requirement for the area as such. Is that what you are
7 looking...

8 MR. CAMPBELL: Just a minute.

9 ---Discussion off the record

10 MR. CAMPBELL: Q. So that to get it back
11 to my simple terms, in addition to the treatment that's
12 required arising out of 5 per cent of the NSR 2 and 3,
13 that the application of the silvicultural ground rules
14 when there is a cut made may involve further additional
15 treatments?

16 MR. ARMSON: A. Yes, there will be -- in
17 fact, if I might, to refer you to the table in the
18 Timber Management Planning Manual and it is on page 151
19 and it is the annual report.

20 So each year there is, for each area - in
21 this case we are dealing with a forest management
22 agreement area - there is a statement there as to the
23 type of -- the areas, recent cut-over and the barren
24 and scattered and NSR, and then if you look down that
25 you will see there is a space for what has been treated

1 currently of those areas and what has to be -- that is
2 current and what has been treated to date.

3 And that gives you a running tally, if
4 you will, of areas treated in terms of artificial
5 regeneration, so on, site preparation and maintenance
6 by whether it is cut-over or barren and scattered and
7 NSR.

8 Q. All right. So that - I am trying to
9 just put this in kind of simple ways that I can
10 understand - your total treatment obligations are
11 not -- in terms of hectares treated, are the sum of 5
12 per cent per year of your NSR 2 and 3 plus whatever
13 treatment prescriptions are set out in respect of the
14 areas that you cut?

15 A. Yes, that's correct. And I should
16 point out there is a five-year plan which will include
17 for the proposed operating area the areas and the
18 extent of those proposed activities. So that's the
19 projection forward.

20 I think you are trying -- that's the
21 projection forward. And then there is an annual report
22 on what has been accomplished, and then obviously at
23 the end of the five years there is a summing up.

24 Q. All right. And just to take a very
25 simple example: If 5 per cent of NSR is 5 hectares --

1 5 per cent of the NSR 2 and 3 is 5 hectares and you are
2 cutting an area of 10 hectares and you are required to
3 apply treatment on 70 per cent of that area, the
4 treatment obligation that arises from those two acting
5 together is in total the 5 plus the 7 to get the 12
6 hectares?

7 A. That's correct.

8 Q. Okay, thank you.

9 MR. MARTEL: But if you only do 5 per
10 cent of the 5 - unless I missed something. I
11 thought --

12 MR. CAMPBELL: No, I took the 5 was 5 per
13 cent of the total NSR.

14 MR. MARTEL: Okay, it is 5 per cent,
15 pardon me.

16 MR. CAMPBELL: Q. Gentlemen, could we
17 turn to Exhibit 29 which is the statistics and go to
18 page 17 of that, please. Exhibit 29, Statistics 1987.
19 Do you have that gentlemen?

20 MR. CARY: A. Yes.

21 Q. Mr. Cary, I will go to you and make
22 sure I understand these numbers correctly.

23 There is a table at the top of page 17
24 that includes clear cutting as a regeneration
25 treatment. Do you see that?

1 A. I do.

2 Q. Could you describe for me, please,
3 what modifications to cutting practices are made such
4 that clear cutting is included in this category as a
5 treatment?

6 A. The area that's reported under the
7 category clear cutting will be according to a strict
8 prescription for a particular species, for example
9 poplar or hard maple, sugar maple and according to that
10 prescription, the area is laid out and we conduct a
11 harvest on that area at the right time of year to
12 encourage, for example, poplar suckering.

13 So it is an area with a specific
14 prescription on which we have spent money in planning
15 and perhaps on the ground by marking it and it is those
16 hectares that are reported under clear cutting.

17 Q. All right. So there is no sort of
18 universal way to identify what modifications of cutting
19 practices result in clear cutting being a regen? Can I
20 take that as a summary of where we are?

21 A. We have lumped it with modified
22 harvest cutting in a general sense, and I went through
23 that process at the beginning of our lead.

24 So strict cutting, seed tree cutting,
25 shelterwood cutting, clear cutting, called the modified

1 harvest cutting, we report them because we spend money.

2 Q. All right. But not all clear
3 cutting--

4 A. Oh, no.

5 Q. --is treated as a regen?

6 A. Absolutely not.

7 Q. And I guess what I am asking is: Is
8 there any -- how do we make the distinction between
9 what falls into clear cutting as a regeneration
10 treatment and clear cutting as not a regeneration
11 treatment?

12 A. Well, we treat clear cutting by
13 planting it, by seeding it as well.

14 Q. No, but those things are otherwise on
15 the list.

16 A. Yes.

17 Q. Seeding, scarification, planting.

18 A. Those usually aren't clear cuts.

19 Q. Yes, but if you are counting them
20 there and under clear cutting --

21 A. No, we are not, there is no double
22 counting here.

23 Q. Well, that is what I am asking.

24 A. Okay.

25 Q. So what is it about clear cutting --

1 A. I have just described that. It comes
2 back through a natural recess. Maple is released, a
3 carpet of maple seedlings is released through an
4 opening of the canopy.

5 Q. I understand that, I think you have
6 misread my question.

7 A. Okay.

8 Q. I am just asking you to confirm on
9 the basis of the answer that you gave that there is no
10 sort of general rule that can applied to classify clear
11 cut as between clear cut that counts as regeneration
12 and clear cut that does not?

13 A. Well, I have just described what
14 clear cutting is here and so that's the definition of
15 what that 15,000 hectares odd of clear cutting on Crown
16 land comprises. That's what it is.

17 Q. It is those hectares on which there
18 has been some money spent for...

19 A. The planning or the implementation.

20 Q. I mean, in other clear cuts -- there
21 is a lot of clear cut that doesn't fall into this
22 category, you don't do any planning in relation to it?

23 A. Yes, we do and we plant clear cut and
24 there are costs obviously associated with that. So we
25 report that.

1 But this is a natural -- we have to
2 account for the money we spend, and when we spend money
3 on the development of a prescription and the marking
4 and the careful cutting in the right time of year, that
5 costs us money, takes planning and time and it is those
6 specific prescriptions that enhance or help the natural
7 regeneration process.

8 Q. All right. And you don't do that on
9 what might be called normal clear cuts?

10 A. Normal clear cuts may be treated
11 using...

12 Q. I understand that.

13 A. Okay.

14 Q. You have got a list of regeneration
15 treatments - forget about planting, seeding,
16 scarification, strip cutting, seed tree cutting,
17 shelterwood cutting, all those things - apart from
18 those, what is it you do with clear cutting that counts
19 for regeneration versus what you do for clear cutting
20 that doesn't count for regeneration?

21 A. The areas we don't treat are left for
22 natural regeneration.

23 Q. But you don't treat -- how are you
24 using treatment? It looks to me like you don't treat
25 clear cutting because you have already counted

1 planting, stock, and so on, up above on this table.

2 I don't know why this is so complicated.

3 My questions are simply: What modifications are
4 included in that category of clear cutting on that
5 table that separates it from all the rest of clear
6 cutting?

7 MR. GORDON: A. May I help?

8 Q. Yes.

9 A. Sometimes there may be no
10 modifications. What basically is happening here is
11 there may be a conscious decision by the manager to
12 recognize what is going to happen on that site and
13 relative to what the manager wants to grow in the
14 future.

15 If there is poplar on a given site before
16 it is cut and the manager doesn't want to introduce
17 conifer back on that site but is willing to accept, for
18 all sorts of reasons, future demand or whatever, poplar
19 coming back on that site, then he will say: Okay, I am
20 going to go clear cut that and let the poplar come by
21 suckering.

22 And those hectares where you make that
23 conscious decision to allow that to happen and
24 recognize that, then you would record those as clear
25 cutting.

1 Q. As a regeneration treatment?

2 A. That's correct.

3 Q. So that it could in fact be that
4 there is nothing done from a treatment point of view,
5 but because of that choice it falls into -- you get
6 credit for it for regeneration?

7 A. Right, as you properly should. Yes,
8 it is just making a decision.

9 Q. Well, there may be a little argument
10 about that.

11 A. Fine, we will argue. The only
12 difference between that and a normal clear cut is you
13 are making a conscious decision that you are going to
14 accept what comes back and you are dealing with species
15 such as poplar or hard maple.

16 And so, for example, as you develop your
17 ground rules for your different plans you might
18 recognize that in the poplar working group that there
19 are some hectares, you have no problem clear cutting it
20 and them coming back as poplar, and when that happens
21 you would report it as clear cutting.

22 MR. ARMSON: A. If I might give another
23 example, a very real example, where we are not invoking
24 a change in species. There are many black spruce
25 stands, particularly in the clay belt, that are

1 overmature. One of the characteristics of the
2 overmature stand in those areas on organic soils is
3 that they regenerate to black spruce again by layering
4 and so on.

5 And in fact there are prescriptions,
6 prescriptions but not treatments, where in fact you
7 harvest the merchantable material and you harvest it in
8 such a way that the already established regeneration -
9 we often term it advanced growth, Mr. Martel, sorry for
10 that - and that is harvested so that that becomes the
11 next black spruce crop.

12 And we are not changing, we in fact have
13 deliberately chosen a system of harvesting in which it
14 is clear cut but it is harvested in a way so that the
15 advanced growth will maintain itself and move on. That
16 is a general clear cut without a treatment as such.

17 Q. All right. So that it is entirely
18 possible in this clear cutting category under
19 regeneration, which is somewhere between 10 and 15 per
20 cent of the total regeneration treated area, that in
21 fact you have done absolutely nothing and yet it gets
22 counted for 10 to 15 per cent of the total
23 regeneration?

24 MR. GORDON: A. Well, I think you have
25 done something, you have harvested it the right way.

1 MR. CARY: A. Yes, to promote natural
2 regeneration.

3 Q. Well, I would assume you never want
4 to harvest it the wrong way.

5 MR. GORDON: A. That's correct, but you
6 still have done something.

7 MR. CARY: A. You have made a careful
8 planning decision that may have cost you some money and
9 you have promoted natural regeneration of that site,
10 whether it is black spruce, poplar or hard maple.

11 THE CHAIRMAN: If you chose not to do it
12 then you could not count it as part of the
13 regeneration, but you would have done absolutely
14 nothing in terms of treatment?

15 MR. CARY: If we -- exactly, if we had
16 not taken care or the forester or the technician hadn't
17 had a look at that, we wouldn't report it, it simply
18 wouldn't get reported.

19 If there is a specific prescription and
20 there is a project made, it says this is a clear cut
21 and we record it at the district on a project file. So
22 it is a specific regeneration project.

23 MR. CAMPBELL: Q. All right. But let's
24 take your poplar as an example. You have got an area
25 and you take a look at it and say: I kind of like

1 poplar, we are happy to have it come back in poplar, we
2 are going to cut the trees that are there now.

3 It seems you are telling me that there is
4 some difference in the way you would cut the trees if
5 you were just content to let it come back to poplar,
6 which gets you this qualification, as opposed to if you
7 were just going to take out the trees and let what
8 happen happen.

9 A. I am saying that that may well be the
10 case. You may choose to harvest in winter which
11 promotes suckering from the root systems.

12 Q. Okay. Now, Mr. Castrilli attempted
13 to make a comparison here between various years, I
14 think the 200,199 figure over on page 16 under the
15 total Crown land or some equivalent, maybe it was the
16 223,000 figure for the years, and was advised that the
17 years weren't comparable.

18 I have done a little exercise that I
19 would like -- and drawn a conclusion. Now, let me lay
20 it out and I am sure you will have no hesitancy in
21 telling me where I have gone wrong if I have.

22 What I did is I took the total Crown land
23 regenerated, I got the '87 figure from page 17 and I
24 got the 83-86 figure from page 19.

25 MR. CARY: A. Yes.

1 Q. And I looked --

2 MR. FREIDIN: Just so I can follow this,
3 the 1983-1986 figures for what?

4 MR. CAMPBELL: For regeneration
5 activities total -- there is a total line that reads
6 under '83, 80,913 across to '86, 103,547.

7 I took for '87 the figure on page 17 of
8 111,392 and I compared that with the sum for harvesting
9 on uneven-aged -- no, just harvesting generally, I am
10 sorry, for similar years 83-86 -- well, I guess I
11 didn't use the '87 figures.

12 I looked at the 83-86 figures in both
13 cases, all right. You have got the total harvest 83-86
14 and the total regeneration over on page 19, 83-86.

15 MR. CARY: Yes.

16 MR. CAMPBELL: Q. Those two figures.
17 And I took the difference between the area cut and the
18 area regenerated for that four-year period and, if my
19 mathematics are right, it averages out at about 119,000
20 hectares a year difference.

21 Subject to checking the mathematics, does
22 that appear sort of like a reasonable average
23 difference between those numbers?

24 MR. CARY: A. I believe so.

25 Q. All right. Now, simply on the basis

1 of mathematics, taking into account we are spreading
2 this over a little more time, aren't we able to
3 conclude that there is about 100,000 hectares being cut
4 each year that is not receiving any treatment at all
5 including any special cutting practice?

6 A. In a general sense, I would agree
7 with you.

8 Q. Well, in a specific sense, is there a
9 problem with my logic? I mean, there may well be a
10 conscious decision to do that.

11 A. Yes. All I can say is that we may be
12 treating seven year old cut-over in some instances
13 which aren't in your figures. So there may be a bit of
14 variation.

15 Q. I understand that, but by spreading
16 it at least over the four years, my conveniently
17 available numbers didn't allow me to go forward or
18 backward any farther, but in a general sense, it
19 looks -- it is fair to conclude that we are running
20 about 100,000 hectares a year behind, or a little more
21 than that, behind in terms of area regenerated versus
22 area cut?

23 A. I trust your math.

24 Q. But do you agree with the conclusion?

25 A. Yes.

1 Q. All right. And looking at that
2 100,000 or 118,000 or 119,000 figure - I guess I am
3 turning to you, Mr. Armson - is it that kind of area --
4 can I conclude from that there is on average 100,000
5 hectares a year that are being cut, no special cutting
6 practice, no regeneration treatment, all perhaps by
7 conscious choice - and I am not saying that is not an
8 appropriate or inappropriate choice - accepting all of
9 that, is that what you refer to when you talked about
10 harvest with no renewal?

11 MR. ARMSON: A. Renewal meaning
12 treatment, conscious treatment.

13 Q. I am trying to use your term -- I am
14 trying to understand what your terminology is.

15 A. That's right, that would be with no
16 conscious renewal treatment.

17 Q. All right. So that when we are
18 talking about harvest with no renewal, we are talking
19 about a situation where there is no special cutting
20 practice and there is no effort to apply any particular
21 treatment apart from natural regeneration --
22 revegetation, natural revegetation, and it would appear
23 on the basis of the numbers that we are looking at an
24 increment to that kind of area on average of about
25 100,000 hectares a year?

1 A. Under those conditions, yes. Under
2 the planning process it would be described as to what
3 harvesting procedures would take place, but there would
4 be no -- but they wouldn't be directed, if you like,
5 towards, as they would be in the question of clear
6 cutting or strip cutting, towards a defined objective
7 at a defined time necessarily.

8 Q. All right. But have I accurately --

9 A. Yes, you have got the arithmetic
10 correct.

11 Q. I know, but have I accurately
12 described the circumstances that you mean when you use
13 the terminology harvest with no renewal?

14 A. That's correct.

15 MR. FREIDIN: And just before you go on,
16 Mr. Campbell, could you identify the tables that you
17 referred to in coming up with your calculations of area
18 harvested and the areas regenerated?

19 MR. CAMPBELL: Yes. I took it out of
20 Exhibit 29, page 16, at the bottom of the page there is
21 a table that gives area cut on -- the area cut, I added
22 up the total for 83-86.

23 MR. FREIDIN: All right. And that is on
24 the table at the bottom left -- the bottom of page 16?

25 MR. CAMPBELL: Yes.

1 MR. FREIDIN: Okay.

2 MR. CAMPBELL: And I have compared that
3 with the total area in the table on page 19 for the
4 same years, those figures starting at 80,913 and 100 --
5 over 200; 1986, 103,547.

6 MR. FREIDIN: Thank you.

7 MR. CAMPBELL: Q. And, Mr. Cary, is that
8 a fair comparison?

9 MR. CARY: A. Yes.

10 Q. Thank you.

11 A. Over a five-year period.

12 Q. Yes, but those are proper figures to
13 use in the way that I have used them; is that correct?

14 A. That is a record of cut and
15 regeneration treatment.

16 Q. But is it fair to use them the way I
17 have used them, to look at the regen on the one side
18 and look at the cut on the other side and say there is
19 an incremental difference of areas with no treatment of
20 approximately that amount per year?

21 MR. GORDON: A. May I suggest, Mr.
22 Campbell, that perhaps a more -- a better comparison
23 would be to use those numbers that you used on page 19,
24 the row of 80,913.

25 Q. Yes.

1 A. Which you did use.

2 Q. Yes.

3 A. And compare those to the row on the
4 first line on page 16.

5 Therefore, you are comparing Crown land
6 clear cut management or even-aged management to Crown
7 land even-aged management. If you use the line at
8 bottom that you used on page 16, it includes patent
9 land so it is a different land base.

10 So I would recommend that you do that
11 comparison. It is still a fairly large number, but it
12 is not as large as you are coming up with.

13 Q. You mean there --

14 MR. CARY: A. It would depend. I didn't
15 understand what -- were you using that 200,199 figure
16 in 1986 or the 223,517 figure in 1986?

17 Q. No, I used the 223,517.

18 A. Well, that does include patent land.

19 Q. All right. Proportionately, can you
20 give me the figures for '83, '84 and '85 that you think
21 I should compare to the totals on page 19?

22 A. I haven't got them at hand, because I
23 am looking at Statistics '87. But as a proxy, you
24 could use the activity on agreement forest, WI and
25 other patent lands which would reduce that number of

1 223 by some 17,000 hectares.

2 Q. 70?

3 A. 17,000.

4 Q. All right. But that doesn't help me
5 with '85, '84 and '83; does it?

6 A. Well, if you could reduce your -- the
7 totals by that sort of figure each time, you would have
8 a rough approximation.

9 Q. Well, could we deal with it this way.

10 MR. CAMPBELL: Mr. Chairman, could I get
11 an undertaking - I don't think it is necessary to do
12 this one in writing - just to produce, I think I was
13 told that the accurate number is the total Crown land
14 number of 200,199 to compare with the total I have on
15 the page 19, the totals I have used in page 19; is that
16 correct?

17 MRS. KOVEN: It is 200,000.

18 THE CHAIRMAN: Well, Mr. Campbell, is the
19 actual number of any importance or is the point you are
20 trying to make the thing of importance?

21 Assuming that whatever the actual number
22 is, Mr. Cary, there will be - I don't like to use the
23 word shortfall - but there will be a differential
24 between the amount cut which will be higher than the
25 amount regenerated, it will not be 118,000 it may be

1 80,000 or some other number?

2 MR. CARY: Mr. Chairman, that is what I
3 said. In a general sense I agree with you. Mr. Gordon
4 corrected me in his usual exact fashion. But in a
5 general sense I agree, there is going to be a
6 difference between the harvest cut and the level of
7 regeneration treatment, each year there will be a
8 difference.

9 MR. OSBORN: Mr. Chairman, may I humbly
10 submit that is all shown on page 149 in a very simple
11 picture.

12 THE CHAIRMAN: Of...?

13 MR. OSBORN: Of the evidence-in-chief,
14 sir, sorry.

15 MR. CAMPBELL: I am interested in roughly
16 putting a number on that, first of all, Mr. Chairman.
17 Really all I need to do that -- is it there for each
18 one?

19 MR. CARY: There it is.

20 MR. CAMPBELL: If it is there for each
21 one, that is fine.

22 MR. CARY: Document 28.

23 MR. CAMPBELL: Q. All right. So I can
24 read off this scale and come up with a close
25 approximation?

1 MR. CARY: A. Right.

2 Q. Fine. And the difference there, Mr.
3 Armson, is what you would refer to as falling into a
4 classification of harvest with no renewal?

5 MR. ARMSON: A. Harvest with no renewal
6 meaning treatment, yes.

7 Q. Well, I would kind of like an
8 unqualified one. You people use the term harvest with
9 no renewal. Is that difference what is called harvest
10 with no renewal?

11 A. The word renewal has unfortunately -
12 and, again, Mr. Martel my apologies - but has been used
13 as a substitute in many instances or synonomously with
14 regeneration treatment.

15 It has to some people become related to
16 regeneration which is different from the treatment.
17 And this is the point I believe, Mr. Campbell, that
18 where we get this confusing terminology we have to be
19 clear that areas may be treated and they may be
20 something less than, as indicated in this document on
21 page 249, significantly less than the existing annual
22 area that is depleted by harvesting.

23 But that tells you nothing, that tells
24 you nothing about the areas that have been harvested,
25 let's say in '74, and are regenerated to commercial

1 tree species either by treatment or by other -- by
2 natural causes and some people refer to that then as
3 renewal. Unfortunately...

4 Q. All right. Mr. Armson, I am asking
5 you how MNR uses the term and asking you to agree with
6 me what I believe to be the case, is that the
7 difference that we have just gone through these
8 calculations, that you say it is demonstrated
9 graphically on page 249, is what MNR means when MNR
10 uses the term harvest with no renewal?

11 A. When we use the term harvest with
12 no -- I don't believe in our official documents we use
13 that in quite that sense. The term renewal is used and
14 if you would like to cite me the specific use, I would
15 like to look at that.

16 Q. Well, you identify in the
17 Environmental Assessment Document that term -- you used
18 that terminology in the Environmental Assessment
19 Document.

20 A. The word renewal was used, yes.

21 Q. And you use the phrase:

22 "Harvest with no renewal."

23 A. Harvest with no renewal treatment in
24 that sense.

25 Q. No, you use the terminology harvest

1 with no renewal and I am asking you: Is that what is
2 illustrated as the difference on page 249 of your
3 evidence or -- and this calculation that you have been
4 kind enough to correct me on on pages 17, 19 and 16?

5 A. Well, if I might refer you to the
6 timber -- the Class Environmental Assessment Document,
7 that is Exhibit No. 4 and to page 42, and this is
8 Section 9.4: Renewal.

9 Q. Mm-hmm.

10 A. And it says:

11 "Renewal of the timber resource..."

12 And I am quoting:

13 "...may occur in one of three ways
14 following harvest: (1) The area may be
15 left to regenerate naturally; (2) the
16 area may receive a site preparation
17 treatment to facilitate regeneration of a
18 certain species naturally, or (3) the
19 area may be regenerated by seeding or
20 planting with or without prior site
21 preparation."

22 And I think it makes it quite clear that
23 the term renewal there covers the whole group. And if
24 I gave the impression, and I may have said that in my
25 sense I was using it as a treatment, I stand corrected.

1 Q. All right. When you use then the
2 phrase, "harvest with no renewal", are you referring to
3 the item that is identified as the first item in
4 paragraph number 9.4 under the heading Renewal?

5 Is that what you mean when you say
6 harvest with no renewal?

7 A. No specific treatment, either two or
8 the three, no site preparation.

9 Q. All right. So that under renewal,
10 when I am reading -- taking the words, when I come to
11 that classification the area may be left to regenerate
12 naturally, that is what you mean when you say harvest
13 with no renewal?

14 A. Yes, in that previous sense, correct.

15 Q. In what previous sense?

16 A. Well, when you were asking me before
17 I quoted from the document.

18 Q. I really want just a clean answer to
19 this. When you have referred me to page 42 of the
20 Environmental Assessment, the words:

21 "The area may be left to regenerate
22 naturally..."

23 Is that what you mean, you being MNR,
24 when you use the terminology, harvest with no renewal?

25 A. Yes.

1 Q. Thank you.

2 MR. MARTEL: Could I ask Mr. Cary a
3 question? I want to go back to poplar and suckering.

4 There are ten old poplar that are in my
5 backyard that sucker like mad and kill everything else.
6 If you cut them down at a specific time of the year,
7 are they going to sucker more or less?

8 MR. CARY: They are, they are.

9 MR. MARTEL: I think you said they sucker
10 more if you cut them in winter.

11 MR. CARY: That's correct.

12 MR. MARTEL: They sucker like mad now.

13 MR. CARY: I agree.

14 MR. MARTEL: How much is that? How much
15 is more?

16 MR. CARY: And when you cut them down
17 they are going to sucker even more.

18 MR. FREIDIN: How much do you charge for
19 that information?

20 MR. CARY: So do it in winter.

21 THE CHAIRMAN: I think it is time for a
22 break. We will break for 20 minutes.

23 ---Recess taken at 3:30 p.m.

24 ---Upon resuming at 4:00 p.m.

25 THE CHAIRMAN: Thank you. Be seated,

1 pleased.

2 MR. CAMPBELL: Q. Mr. Armson, we have
3 been through a calculation whereby we identify that
4 area which, to use your terminology, fall into the
5 classification of harvest with no renewal.

6 Can we deduce from this -- would it be
7 fair to deduce from this that the area called the
8 commercial new forest; that is, new forest of desirable
9 species and other attributes, that the area of
10 commercial new forest will be substantially smaller
11 than the area of the old forest in that the return to
12 commercial species on the area of the old forest cut
13 and left to natural regeneration will occur more by
14 nature's choice as opposed to happening by timber
15 management?

16 MR. ARMSON: A. Well, that doesn't mean
17 that there won't be commercial species, though. You
18 started off with commercial species. It may not
19 necessarily have the composition or species when it
20 occurs naturally without any intervention, that's
21 correct.

22 Q. But can we deduce that the area of
23 that new forest will be substantially smaller than the
24 area of the old forest?

25 A. I think the area that it will be

1 reduced by I think was demonstrated by Mr. Gordon and
2 Dr. Osborn in terms of the reduction of the forest area
3 by virtue of access roads, landings and areas of that
4 type. And that reduction, just a figure offhand, I
5 think was something of the order of 15 per cent.

6 MR. GORDON: A. 5 per cent.

7 MR. ARMSON: A. 5 per cent for that,
8 sorry.

9 Q. Well, I had sort of taken both from
10 the graphics that you used and from this sort of
11 100,000 figure whatever it turns out to be not
12 receiving any special treatment, that it would be fair
13 to conclude that somewhere down the road you will be
14 meeting the demand on the new -- the wood demands from
15 the new forest from a significantly smaller land base;
16 is that an improper inference?

17 A. Yes.

18 Q. I will come back to this in a later
19 panel because I just have to check on -- so we will
20 deal with this later.

21 Is it not correct, though, Mr. Armson,
22 that the area in the new forest that you have to
23 harvest to meet a given level of demand should be
24 smaller?

25 A. The area in the new forest, yes, will

1 be smaller by virtue of areas that are not production
2 because of, as I say, access, landings and that type of
3 thing. I am not taking into account areas that are
4 taken out for other uses or other reasons or so-called
5 "inoperable" areas.

6 Q. Apart entirely from that--

7 A. Apart entirely from that.

8 Q. --that land base that's used for the
9 tree production in the new forest for a given level of
10 production will be smaller than in the old forest?

11 A. Yes, but not significantly so. I am
12 using that 5 per cent.

13 Q. You think it is the roads and
14 landings only that make it --

15 A. That's primarily it, yes.

16 Q. All right. I want to go to another
17 example of what can happen in a particular area and
18 maybe focus on a particular target species.

19 In this example, let's say you are going
20 to cut upland black spruce identified in the -- how
21 would you identify that, through the FRI initially, is
22 that the way that was located?

23 MR. GORDON: A. You could, yes.

24 Q. All right. Presumably the local
25 forester would know where it is located as well in his

1 unit?

2 A. We will assume so, yes.

3 Q. All right. You have got the
4 management prescription for this area of cut, you want
5 to regenerate in black spruce, 70 per cent stocking,
6 that's the management objective. Is that a reasonable
7 sort of management objective, is that in the realm of
8 reasonableness?

9 A. If you are going to plant the area,
10 that would be a reasonable management objective.

11 Q. Okay. And you then assume for the
12 purposes of this that you do regeneration treatment
13 aimed at artificial regeneration of black spruce, all
14 right, and is it not possible that the unit forester
15 has a discretion and may choose not to do either a
16 survival survey or a stocking survey. Neither one of
17 those things are mandatory; is that correct?

18 A. That's correct.

19 Q. All right. So that 8 to 12 years
20 later, as I understand it, is the benchmark time for
21 doing a free to grow survey?

22 A. That's our estimate on average for
23 the range of sites. It will vary from site-to-site.

24 Q. All right. But that's a ground rule
25 for--

1 A. Sure, yes.

2 Q. --upland black spruce?

3 A. Yes.

4 Q. And that survey is compulsory if you
5 want to see whether you can put it back in the MAD?

6 A. That is correct.

7 Q. All right. Now, assume that the
8 survey findings are this: That in fact your stocking
9 is less than that set out in your benchmark minimums
10 for free to grow standards, okay, assume that; assume
11 there is lots of competition say from poplar; assume
12 that the black spruce are not a metre high and that the
13 treatment costs are greater than normal treatment
14 costs.

15 Have you got those assumptions?

16 A. Yes.

17 Q. Now, I realize that those assumptions
18 are biased in a certain direction but they are not
19 impossible; is that correct; they are not totally
20 unreasonable?

21 A. There could be some hectares out
22 there that could meet that, that's correct.

23 Q. Okay. Now, as I understand it, the
24 result of those conditions would be that the area could
25 not be declared free to grow in spruce?

1 A. That is correct.

2 Q. What would its classification be at
3 the time you did the free to grow survey?

4 A. It could potentially go into the --
5 be declared free to grow as poplar.

6 Q. All right. But it doesn't -- because
7 this NSR survey is only done once, and I take it that
8 even though it meets all of those conditions it might
9 be -- because of the treatment cost being higher than
10 normal, it doesn't end up in any of the NSR categories,
11 that's finished and done with; is that correct?

12 A. I think you are confusing me. Why
13 are we talking about NSR surveys again?

14 Q. Well, I just want to be sure -- I am
15 just trying to get all of these surveys straight in my
16 head and having done your free to grow survey 8 to 12
17 years later, you said it is not -- it won't meet free
18 to grow but --

19 MR. FREIDIN: For spruce he said.

20 MR. CAMPBELL: Q. For spruce, and you
21 said it could be declared free to grow in poplar, but
22 say it wasn't free to grow it any commercial species,
23 is it classified as anything else, or is it just sort
24 of -- what do you call that when you go out and you do
25 the free to grow surveys, you find it is not free to

1 grow in anything? What does it fall into?

2 DR. OSBORN: A. Mr. Chairman, without
3 some more information it is very hard to continue this
4 because there is an FRI classification for virtually
5 all pieces of land.

6 Now, there is a range of possibilities,
7 but until there is more information presented it is
8 hard to classify exactly where it would land.

9 Q. What are the choices, Mr. Gordon? If
10 you as a forester go out and look at it and find those
11 findings that I outlined, what are the choices as to
12 what you call that piece of land at that point?

13 MR. GORDON: A. Based on the few details
14 you put in front of me, I might surmise that possibly
15 it could fall in the barren and scattered category and
16 sit there at that point in time.

17 Q. As sort of a holding category?

18 A. At the point in time that the survey
19 was done it was not found to be free to grow and,
20 therefore, it could sit there in the barren and
21 scattered category. That is one place it could end up.

22 Q. And the other choices would be?

23 A. I think perhaps you will have to talk
24 to Dr. Osborn on that one.

25 Q. Dr. Osborn?

1 DR. OSBORN: A. NSR 3, NSR 4, NSR 5
2 brush and alder.

3 Q. Ah, so it can at that point be
4 classified as NSR.

5 So if I give you that and say the
6 treatment costs are greater than normal treatment
7 costs, there is a reasonable probability that it would
8 fall into NSR 4 and 5?

9 A. The treatment costs are as of the
10 date you are doing the survey or the treatment costs
11 when it was initially treated?

12 Q. Well, whatever you mean when you say
13 treatment costs are greater than normal for NSR
14 purposes.

15 A. At the time that the survey is being
16 done, okay. In which case it could be NSR 4 or NSR 5
17 or it could be barren and scattered or it could be
18 brush and alder. There is a range of things it could
19 be, but without, again, more details it is very hard to
20 identify exactly what this would be classified as.

21 Q. All right. Am I correct -- I take
22 your answer to be that you have done the free to grow
23 or the NSR survey back at the time the agreement FMA
24 was signed, and then there is a process by which
25 additional areas are classified under those NSR

1 classifications farther down the road?

2 A. Yes. In the FRI this process was
3 explained and in the FRI it is quite possible that some
4 of the people doing the ground surveys in the areas
5 that are very young or recently cut-over may use some
6 of the ingredients of the NSR classification as an aid
7 in the FRI process.

8 Let me back off one step. The FRI had in
9 the past and still has barren and scattered. A
10 gorgeous catch-all and we went through some difficulty
11 with what the hell was in barren and scattered. NSR
12 classes in fact are a refinement on that barren and
13 scattered classification.

14 As Mr. Armson has said, some unit
15 foresters have behooved themselves to add that
16 additional piece of information when they go look at
17 what is on the very young areas.

18 So although there is not a formal NSR
19 survey, per se, as there is in the front of the FMAs,
20 some of the FRI crews and the unit foresters will pick
21 up that additional information which they think is
22 proving useful to them and we may find in the NSR
23 process - may, not always - some of the areas with an
24 NSR class assigned to it.

25 Hence it would be, in the example given,

1 perhaps NSR 4 or 5 or other things I have listed.

2 Q. All right. So that the result -- at
3 least one possible result of the free to grow survey is
4 that some areas are added into the various NSR classes?

5 A. This is a possibility under the FRI
6 process, yes, at the time the FRI data are put
7 together.

8 Just to help you a little bit. When the
9 the free to grow survey is being done, that is
10 recorded, the people in the district will keep that
11 information, the FRI cycle comes round, that piece of
12 information is available to help the FRI crews
13 interpret and add to the description of the forest in
14 the young age-classes and we went through and described
15 this process in Panel 3.

16 Q. I see. So that I have got to temper
17 your remarks about NSR only being relevant at one point
18 in time by that additional site plan?

19 A. Well, they are relevant when NSR --
20 they are relevant when this free to grow survey was
21 done. The unit forester, whoever did the survey, has
22 found an additional piece of information which may or
23 may not be of help to them in what do I do with this
24 area, as has been illustrated.

25 Q. Okay. Let's just continue with my

1 example. Would you agree that under the scenario that
2 I outlined, the set of circumstances as we worked
3 along, that it could be added because of treatment
4 costs into NSR 4 and 5 categories?

5 A. It could be classified as NSR 4 or 5,
6 yes.

7 Q. Right. And so it sits there for a
8 while and I guess everybody's testimony is that pretty
9 much everything revegetates in time, as I understand
10 it; is that correct, Mr. Armson. As a general rule,
11 that's the position you take?

12 MR. ARMSON: A. Yes.

13 Q. All right. So a little more time
14 goes by, the unit forester comes by at some later date
15 and says: All right, now I find poplar stocking level
16 of 70 per cent, the poplar trees are greater than one
17 metre high, and just to cover off all of the tests
18 rather than any real possibility that this is a
19 concern, the spruce is not offering significant
20 competition to the poplar.

21 Now, the result of those circumstances, as
22 I understand it, is that the area could well be
23 declared free to grow in poplar; is that correct, Mr.
24 Gordon?

25 MR. GORDON: A. That's correct.

1 Q. And the result of it being declared
2 free to grow in poplar is that it goes back into the
3 MAD base?

4 A. That is correct.

5 Q. And assuming that industrial demand
6 is for conifers, that poplar going back into the --
7 that poplar certainly isn't going to feed the mill; is
8 it?

9 A. That is correct.

10 Q. All right. Now, what is the
11 practical result then of that area going back into the
12 MAD base in terms of supply to the industry?

13 A. If you mean by practical result, by
14 putting that back into the MAD calculation in the
15 poplar forest unit does it somehow help the industry
16 who needs conifer specifically and only, then obviously
17 it doesn't help them at all.

18 Q. Right. So that from a practical
19 basis the result is not that the industry is allowed to
20 cut any more conifers, but rather that it reduces for
21 the industry the land base that is actually available
22 to serve the needs of the industry which is the conifer
23 in my example.

24 Is that fair?

25 A. Yes.

1 Q. And I guess, Mr. Armson, I ask you
2 this question - but again, any of the other panel - in
3 your view, is the fact that it will not go back into
4 the MAD base in any way that would assist the industry
5 in obtaining the wood that it needs, is that
6 sufficiently important to ensure that every reasonable
7 effort is taken to ensure that that kind of situation
8 doesn't arise and that, in fact, it goes back into the
9 working group that the industry wants.

10 Is that sufficient incentive?

11 MR. ARMSON: A. It is of concern and it
12 is an incentive to ensure that where an investment is
13 made and directed towards producing a particular
14 conifer forest and that is not achieved, rather than
15 poplar in your example, I would state categorically,
16 yes, that is a matter of concern and it certainly
17 provides an incentive to those to remedy the situation
18 and find out why it didn't move in that direction,
19 unless that was partly planned, but I don't think in
20 this case, in your example it was.

21 Q. No, in my example it was not.

22 A. No.

23 Q. Now, I guess -- again, based on your
24 experience, you would agree that it is an incentive - I
25 guess my question was - is it a sufficient incentive to

1 to ensure that every reasonable effort will be taken
2 along the way to ensure that that land actually goes
3 back into a useful working group?

4 A. Into a desired working group.

5 Q. Yes.

6 A. Correct, yes. And I think we have
7 some evidence, although not complete, but if you were
8 to look in the documentation in the Panel 4 statement,
9 for example, in the - and I just happened to be
10 thinking of this as you were asking - in terms of the
11 improvement in survival, particularly for black spruce,
12 that was the species you referred to, if you go to page
13 211 of the witness statement, and there - if you will
14 recall the five sample forests - and there is a summary
15 of the survival and, granted, this is only a limited
16 piece of evidence, for the decade 1963-1973 you will
17 notice that the survival as compared to the decade
18 1974-1984, and you will notice for jack pine there has
19 been basically no change, 83 and 84 per cent, and I
20 would submit that survival rates of that are quite
21 acceptable. Black spruce from 58 per cent on the
22 average to 80 per cent in 1974.

23 One of the most serious concerns that we
24 had in terms of not -- I may say reflect some of the
25 early SOARS work, was that the stock that was being

1 shipped out of nurseries was in fact not in good
2 condition due to either poor transportation or poor
3 storage, and it was particularly true for such species
4 as black spruce.

5 With container stock you can see a
6 similar improvement in black spruce, and on page 212
7 there is in fact a provincial summary but only for the
8 periods 81-87, it is less obvious there.

9 But very specifically, Mr. Campbell, it
10 has been an incentive, and one of the specific actions
11 was to improve the handling, transportation and storage
12 of planting stock so that it would be in better
13 condition.

14 The second example I would give you - and,
15 again, this is only a part answer - is the concern that
16 we have had over not tending; that is, not ensuring
17 particularly with spruce that when plantations were set
18 out that there was some maintenance activity which
19 would minimize the effect of those planted spruce being
20 overtopped and out-competed by such species as poplar
21 and birch.

22 Q. I guess I will come at my question in
23 a slightly different way. Again, I recognize that it
24 is an incentive to ensure that it comes back into the
25 desirable species but, for instance, would you see it

1 as completely unreasonable to suggest that after - this
2 can only be done after a phase-in period, so give us
3 that - but once a phase-in period was allowed for, that
4 there be some sort of requirement that the amount
5 harvested must be tied to the amount which comes
6 back -- which is declared free to grow in a desirable
7 species, so as to link it more directly to the
8 sustained yield concept?

9 A. I understand your question. I
10 don't -- I think that the management objectives would
11 take priority. The amount harvested is based on what
12 is there which is "essentially a natural forest", and a
13 forest. If you want to use that as your benchmark
14 measure, as has been explained by Dr. Osborn in Panel
15 3, there are a number of factors that come into how you
16 determine what that level is, that is one thing that
17 could be used.

18 But I would suggest that in terms of the
19 future, it may well be that you could have a unit in
20 which your harvest level is low because of the existing
21 growing stock and you actually carry out your
22 silvicultural practices as an investment because of the
23 existing land base, access, towards increasing that.
24 There may - I can't think - there might even be a
25 situation where you might want a decrease for certain

1 reasons.

2 But I think that one of the key elements
3 here, and you have been using the forest management
4 agreement areas quite properly as an illustration, was
5 that when the development of the plan, again, with
6 Ministry approval, by the industry who obviously has
7 the most to gain by having conifer species if they are
8 interested in the most productive areas and seeing that
9 they come about. That, I would suggest, is a very
10 powerful incentive within the management system, given
11 the appropriate constraints and regulations.

12 Q. So that the concept I outlined is
13 not, as I understand your answer, completely
14 unreasonable, it is your view that the incentive is
15 sufficient so as not to take that direct -- take that
16 direct time necessary. Is that a fair summary?

17 A. Yes, that would be my answer, yes.

18 Q. Mr. Gordon, when you were going
19 through your OWOSFOP assumptions you spoke of
20 improvements in mill productivity. It was either
21 yourself or Dr. Osborn.

22 MR. GORDON: A. It was myself.

23 Q. Would you agree with me that
24 improvements in mill productivity don't necessarily
25 have to be reflected in less trees in the door, it

1 could just as easily be reflected in more product out
2 the other side; that is, there are two sides to that
3 particular coin?

4 A. Yes.

5 Q. But the OWOSFOP model, as I
6 understand it, operates in the direction of affecting
7 the tree supply for the mill productivity improvement
8 but it doesn't make an assumption that the product out
9 the door is in such demand that they can sell
10 everything that they can push out, and this gives them
11 an opportunity to sell more for a given amount of
12 input.

13 Am I understanding the model correct?

14 A. To be honest, you have lost me.

15 Q. As I understood the model, the
16 productivity improvements - and Dr. Osborn if you want
17 to help him, fine - but as I understood the explanation
18 of the model, it was that mill productivity
19 improvements were directly tied back the amount of
20 trees and the amount of wood coming out of the forest.

21 DR. OSBORN: A. In how the arithmetic of
22 that works, yes. But to answer your question, you can
23 change the mill demand as an indicator of success in
24 peddling more product out of the back end of the mill
25 to the marketplace at large. So you can do both of

1 those two items that you were speaking to.

2 Q. All right. But as I understood the
3 explanation that was given, the way it has been treated
4 in the ones that we have seen has been that assumptions
5 about increased productivity have resulted in -- you
6 have assumed that -- the mathematics have assumed that
7 there is fewer trees taken?

8 A. Because we have assumed that we had a
9 fairly good handle on what the projected demand in the
10 mill door was.

11 Q. Okay.

12 A. That's why.

13 Q. I just wanted to make sure I
14 understood it.

15 Dr. Osborn, I believe it was you who
16 indicated that the OWOSFOP modeling had been made
17 available to industry, been offered to one or two
18 companies. Am I correct in that, that is what you
19 said?

20 A. The MAD version of OWOSFOP was made
21 available and offered to forest industry.

22 Q. But that's not the case with the
23 policy version?

24 A. That's correct.

25 Q. All right. Can we come to -- I want

1 to ask some questions about yield curves and they are
2 shown on Exhibit 146, and let's just look at page 288
3 as an example, and this is for scenario No. 2 in the
4 OWOSFOP run.

5 Am I correct in my understanding that for
6 the extensive and basic treatment shown on that graph,
7 the yield in the new forest will be less than in the
8 old forest at all ages?

9 A. That's correct.

10 Q. And there are similar cases, for
11 instance, in scenarios 1 and 3, the extensive, the
12 yield in the new forest is lower up to age 75, and
13 scenarios 4 and 5, the old forest in the extensive are
14 identical. Do I read the graphs correctly?

15 A. That's correct.

16 Q. Am I also correct that extensive and
17 basic levels of treatment is not an unusual level for
18 treatment, it is the kind of level of treatment that is
19 fairly widespread?

20 A. That's correct.

21 Q. In other words, the quantity of land
22 that receives that kind of treatment is significant?

23 A. The values are in the runs, so, yes,
24 it is relatively large.

25 Q. And when you use yield in the sense

1 that it is used in these curves and so on, is that
2 synonymous to forest productivity?

3 A. No.

4 Q. Could you explain to me the
5 difference, please?

6 A. Certainly. The easiest measure of
7 forest productivity is a mensurational term and it
8 happens to be mean annual increment at culmination.

9 Q. All right. But if I look at these
10 yield curves, would it be fair for me to say, and let's
11 look at 288, that the productivity of the new forest
12 extensive or the new forest basic is less than for the
13 old forest?

14 A. No, the productivity is the
15 productivity of the land. The land is expressed in
16 what can be produced off that area and that is measured
17 in mean annual increment at culmination.

18 These are yield curves not MAI values
19 and, therefore, the yield and productivity are two
20 separate mensurational terms.

21 Q. Well, am I reading this graph
22 incorrectly that you are getting less volume from new
23 forest extensive and new forest basic than from the old
24 forest?

25 A. Mr. Campbell, as we have been through

1 before these are projections, predictions of what we
2 think may come from the new forest for these two
3 different levels of input, Level 1, Level 2.

4 Q. I understand that. My question is:
5 Is it fair for me to look at these numbers and in terms
6 of the predictions that -- the projections that you are
7 using them for, is it fair for me to conclude that the
8 new forest extensive and the new forest basic is a less
9 productive forest than the old forest?

10 A. I won't bandy words. The total yield
11 to come off the hectares of Level 1 and Level 2 forest
12 is, in these curves, anticipated to be lower in total
13 yield, total volume, than that which was coming off the
14 old forest in the past.

15 Q. And in that sense, am I not correct
16 in concluding that under this scenario for those two
17 classifications of extensive and basic that it is --
18 the new forest has been less productive?

19 A. Okay, and that's why I say I won't
20 bandy words, sir. The total volume, the total yield
21 that will be realized off these two regimes will be
22 lower than that from the old forest. The term
23 productive is a measure of the land's capability.

24 Q. So that what you are saying is that
25 the term productivity, as you use it, is in effect an

1 absolute, it is a measure of the ability of the land to
2 produce trees, and that your practices -- your
3 silvicultural practices will neither raise nor lower
4 productivity in that sense, although it may change
5 yield?

6 A. In simple terms, yes.

7 Q. I always feel given the answer to
8 that, I am forced to say: What is the complication
9 that would make your answer no?

10 THE CHAIRMAN: Do we not want to keep it
11 simple?

12 DR. OSBORN: This was the intent, Mr.
13 Chairman.

14
15 MR. CAMPBELL: I would love to, Mr.
16 Chairman, but I have been burned more than once on
17 that.

18 Q. Let me ask the question quite
19 seriously, in that --

20 DR. OSBORN: A. I am answering very
21 seriously.

22 Q. I am sorry, I must have missed it.

23 A. The answer was -- can I come back to
24 the question, please, just to make sure I have
25 understood the question with the answer I gave, please?

1 Q. Okay. As I understood the discussion
2 of productivity, what you are now saying is that
3 productivity in a sense is an absolute in a sense that
4 it is a measure of the area's capability to produce and
5 that the application of silvicultural practices doesn't
6 affect the productivity, it affects the yield?

7 A. And the reason I hesitated is
8 generally the answer is yes to that.

9 Why do I hesitate? Because there are
10 some silvicultural practices that may in fact increase
11 or decrease the productivity inherently in the land.
12 Some silvicultural practices may change that inherent
13 productivity of the land.

14 Q. And could you give me an example, for
15 instance, of either way, starting with what
16 silvicultural practices could decrease the productivity
17 of the lands?

18 A. Certainly. Drainage if it didn't
19 work. The one that does increase it would be
20 fertilization that did work.

21 Q. All right. And increase it?

22 A. The one I just gave, sir.

23 Q. All right. So it is just the flip
24 side of that coin, not a different example.

25 You see --

1 THE CHAIRMAN: Well, it is a different
2 example, Mr. Campbell. Fertilization is different than
3 drainage.

4 MR. CAMPBELL: Q. I am sorry, Dr.
5 Osborn, could you repeat your answer, please?

6 DR. OSBORN: A. Yes. The one that gave
7 a positive impact of silvicultural treatment that may
8 give a positive impact to increase the inherent
9 productivity would be fertilization, as an example.

10 Q. All right. But short of the things
11 that you try to do that just don't work, are there any
12 circumstances where -- could you give me any other
13 examples of where productivity is decreased?

14 A. Well, the most obvious one would be
15 to put the wrong species on the site because the end
16 productivity is a measure, as I have illustrated, of
17 the land as reflected by a particular species, crop,
18 same as in agriculture, exactly the same concept.

19 So you have a productivity for wheat, as
20 you do for oats, as you do on the same piece of land.
21 So the species will have a different productivity
22 level. If you put the wrong species on the site, we
23 talked of off-site poplars in site class 4 as a classic
24 example of where you may, through the wrong species,
25 end up with a reduced productivity of that site.

1 Q. All right. So that would be a
2 situation where productivity was retarded as a result
3 of silvicultural practices?

4 A. Which is what you asked me.

5 Q. Yes. But it is such an example?

6 A. Yes.

7 Q. All right. Now, when Ms. Seaborn
8 asked you that question in Volume XXVII of the
9 transcript, she asked:

10 "Are there situations where productivity
11 is retarded instead of stimulated as a
12 result of silvicultural practices; that
13 is, your rotation age has actually
14 increased?"

15 You indicated that you were hardpressed
16 to think of an example, and I take it that what you
17 have given me is an example of just that?

18 A. Correct.

19 Q. Are there any other examples that you
20 are able to give now as to when the productivity might
21 be retarded as a result of silvicultural practices?

22 A. Well, if I can just stretch my
23 silvicultural imagination, but if you put very, very
24 very few trees on the area, on an area that was
25 normally covered in trees, for example, depending upon

1 precipitation, you may end up with a loss of nutrients
2 in the course of events.

3 This is not my area of expertise, I am
4 giving you some examples as to where these things may
5 have an influence in light of these questions, but this
6 is not where I come from in terms of background.

7 Q. All right. But in terms of where we
8 sit now in the hearing, you would agree with the
9 general proposition, I take it, that - I think you
10 already have in fairness - that silvicultural practices
11 can both increase and decrease site productivity?

12 A. Certainly.

13 MR. FREIDIN: Can I have the reference to
14 the page in Volume XXVII which you referred to, Mr.
15 Campbell.

16 MR. CAMPBELL: Yes, it is 4462.

17 MR. FREIDIN: Thank you.

18 MR. CAMPBELL: Q. Now, in terms of the
19 actual use of yield curves -- I think I want to turn to
20 the question of areas lost to production.

21 My impression of the evidence in this
22 hearing to date is that there are a variety of
23 estimates of areas lost to production and, for
24 instance, I think the lowest number in that range of
25 estimates happens to be the most recent; that is, the 5

1 per cent roads and landings that is used in the OWOSFOP
2 modeling.

3 That is sort of one number that is used
4 for an area lost to production; is that correct?

5 DR. OSBORN: A. That's correct.

6 Q. And apart from that 5 per cent, does
7 the OWOSFOP recognize any other area as being an area
8 lost to production?

9 A. Page 287. Page 287 of the evidence
10 indicates that there was a form of depletion called
11 zone-out.

12 Q. Yes.

13 A. Which was made up of two components,
14 and those areas are lost in the model, out of
15 production forever in the model.

16 Q. All right. And they were such things
17 as what, park reserves and so on?

18 A. They are areas that have been
19 assigned to land uses other than timber production, for
20 whatever reason, and areas in the model that were
21 deemed to be inoperable, inoperable in a timber
22 management sense.

23 Q. All right. Now, of the areas which
24 are deemed to be operable, the model uses the figure of
25 roughly 5 per cent roads and landings as being lost to

1 production; is that correct?

2 A. Five per cent of the areas that are
3 cut are lost to roads and landings; not 5 per cent in
4 total of the land base or 5 per cent of all the
5 depletions.

6 Q. That is correct. Now, of the area
7 cut that is lost to production, the next highest
8 estimate that I have been able to observe in the
9 evidence is in the Forest Production Policy of 1972,
10 page 65 and that is Exhibit 136.

11 And I am not sure quite who the right
12 person is to answer this question, but am I not correct
13 there that in terms of an area lost to production, the
14 figure in percentage terms that is identified, and I
15 will just take for example in the northwestern
16 region --

17 MR. TUER: What page?

18 MR. CAMPBELL: And I am on page 65, Mr.
19 Tuer.

20 MR. TUER: Thank you.

21 MR. CAMPBELL: Q. In the northwestern
22 region, the total area removed from timber production
23 as a percentage of area cut includes not only reserves
24 and roads, but areas where residue prevents treatment,
25 where there is an increased water level or where there

1 are poor stony sites.

2 Now, am I not correct that that is the
3 next highest estimate in the evidence of areas lost to
4 production classified in that way; am I correct in
5 that?

6 Mr. Cary, I think this is your evidence.

7 MR. CARY: A. That is what the table
8 says on page 65, it has -- you have listed them
9 correctly and it is under total area removed from
10 timber production, 11 per cent of the harvest or the
11 cut-over in the northwestern region.

12 Q. All right. So that in terms of the
13 actual data that we have available to us in this
14 hearing, that is the next highest number above the 5
15 per cent?

16 A. Those are estimates from the
17 assessment of cut-over and regeneration made in April,
18 1970 and they had a look at, I believe, the cut-over in
19 '66, '67, and '68.

20 Q. All right. Now, the next highest
21 number in terms of areas lost to production as a
22 proportion of area cut, as I read the evidence, can be
23 found in Mr. Dixon's paper which we can find at page 81
24 of the evidence. Could you perhaps turn that up, Mr.
25 Cary.

1 All right. And I think the percentages
2 will be found in a couple of places, 81 -- maybe it is
3 easiest to turn over to 83. It is the sentence that
4 you talked about before in the hearing, it says:

5 "If the non-treatable classification is
6 correct, 22 per cent of the area cut may
7 be permanently lost to production."

8 Do you see that figure?

9 A. Yes, I do.

10 Q. And there has been a variety of
11 testimony about the applicability or otherwise of -- or
12 rather, to put it more eloquently, whether that 22 per
13 cent -- the way in which that 22 per cent is related to
14 the non-treatable classification.

15 But at least would you agree with me that
16 in terms of the data that is before this Board, that is
17 the next highest estimate of the area permanently lost
18 to production and that since Mr. Dixon's report there
19 is no consistent analysis to arrive at any similar
20 number?

21 A. There has been no subsequent
22 analysis, you are correct. We, as I have stated before
23 I believe, permanently lost to production, we feel that
24 that is not -- it is Mr. Dixon's opinion and we do not
25 feel that that has transpired.

1 Q. All right. But in terms of actual
2 data that is contained in a study that is attempting to
3 look at this on a fully consistent basis across the
4 areas, that is certainly the best data that is in front
5 of the Board in terms of the most recent data; is it
6 not?

7 A. Yes.

8 Q. And you don't have any -- I just ask
9 you to confirm that you don't have any analysis based
10 on a consistent look at this matter that would actually
11 dispute Mr. Dixon's figure?

12 A. I believe that Dr. Osborn -- Dr.
13 Osborn, correct me if I'm wrong, but did you do a
14 comparison of FRI between two years in Panel 3 that may
15 add to this discussion?

16 DR. OSBORN: A. No.

17 MR. CARY: A. I am sorry, then I am
18 wrong.

19 Q. So you would agree with my
20 proposition?

21 A. Yes.

22 Q. All right. Now -- and, in fact,
23 according to Dixon at page 71 of the evidence, if we
24 looked at it simply on a --

25 MR. FREIDIN: Which page?

1 MR. CAMPBELL: Page 71 of the document.

2 Q. Mr. Dixon notes that in 1980
3 classification which is non-treatable, he said falls
4 into this permanently lost to production, it applied to
5 29 per cent of the cut-over area. That is just a
6 one-year snapshot in history.

7 MR. CARY: A. That is what he says.

8 Q. All right. And, Mr. Armson, am I
9 correct from your testimony that SOARS -- the SOARS
10 Survey doesn't really help us to sort this out in any
11 definitive way because the 20 per cent figure that you
12 spoke of there, we just have no consistent data set as
13 to what that 20 per cent actually went into?

14 MR. ARMSON: A. That is true, but the
15 SOARS Survey only covered areas that had been treated
16 within a certain time period.

17 Q. All right.

18 A. It was limited by that factor too.

19 Q. Okay. So it has those two
20 limitations?

21 A. Yes.

22 Q. Now, in Interrogatory No. 10 of our
23 interrogatories, we were advised in response to a
24 request for an OWOSFOP Policy Model 1, that to do a run
25 that used Dixon's number as well as the -- that is, if

1 you incremented, say, the 5 per cent to Dixon's --
2 well, let's not confuse the issue.

3 That if you plug in the higher estimate
4 of area permanently lost to production, that it would
5 obviously change the result, but there it was -- the
6 view was expressed that a run incorporating that result
7 is not logical, although technically feasible.

8 Now, in light of the data -- the range of
9 the data that has been presented in this hearing, could
10 someone explain to me, please, why it is not logical to
11 run the model with the other end of the boundary of
12 those range of conditions plugged into it?

13 DR. OSBORN: A. Mr. Chairman, I wrote
14 the answer to the interrogatory so perhaps it behoves
15 me to comment.

16 As was explained in both the answer to
17 the interrogatory and the explanation in the evidence
18 presented, there are several other deductions not
19 mentioned by Mr. Campbell inherently built into the
20 model, the first of which was the barren and scattered
21 at the time of the inventory, which is a large
22 proportion of the land base, was not entered at all.

23 So the land base inherently has been
24 reduced right off the beginning. So already the land
25 base has been reduced to a more conservative reduced

1 land base fully realizing that some, if not all, of
2 those barren and scattered areas in real life will
3 return to the production forest.

4 The second observation we made was that
5 the zone-out also takes a piece of the cut to the tune
6 of 20 per cent. And, again, we wrote that piece as an
7 answer to the interrogatory. So that we have already
8 got some deductions made at this point in time in the
9 initial land base and in the subsequent reductions of
10 the land base.

11 Now, given all of that, we certainly - as
12 was mentioned in the answer to the interrogatory -
13 could have technically run the model with a value Mr.
14 Campbell is asking for, and we so said. We have some
15 difficulty understanding why running it, other than to
16 provide an answer. What it will show, without even
17 running the model, is that in fact the new forest will
18 come on stream slower providing a greater amount of
19 stress to industry and/or a reduced amount of available
20 growing stock.

21 Now, I can say that quite categorically
22 without running the model, realizing the implications
23 of those numbers. Exactly when and the magnitude of
24 that, I cannot say without running the model. but, as
25 has already been discussed, the absolute numbers in the

1 model have already been under incredible discussion as
2 to their usefulness.

3 And so our feeling in general was the
4 inference from those numbers are fairly obvious. The
5 new forest will not come on stream as fast or as high
6 and, hence, the logic of running it somewhat escapes
7 me.

8 Q. All right. Well now, let's just
9 explore that answer for a moment.

10 Wouldn't Mr. Dixon have been aware of
11 things such as reserves and aware of all of those
12 factors and yet it was his view that in addition to
13 that, of the area cut, 22 per cent could well be
14 permanently lost to production.

15 Wasn't that Mr. Dixon's view? I am not
16 saying do you agree with it, wasn't it his view?

17 A. Mr. Chairman, we are back into trying
18 to read Mr. Dixon's mind in 1980 and I hesitate at this
19 time in the day to enter into such a discussion.

20 MR. CAMPBELL: Well, rather than trying
21 to extract much more of this, Mr. Chairman, I am asking
22 the Board to make an order that the OWOSFOP model be
23 run in answer to both Questions 9 and 10 on our
24 interrogatories where they have both been refused.

25 I would prefer to have it run following

1 some further opportunity outside of the hearing to sit
2 down with the people responsible for the running of it
3 and make sure that we have a set of assumptions which,
4 while they may not agree with those assumptions, are at
5 least consistent. If they don't choose to take
6 advantage of that opportunity, I will take the run
7 without it.

8 But, in my submission, there is a
9 substantial difference in the data that is available to
10 this Board on the matter of areas lost to production.
11 And, in my submission, it is clear that in terms of the
12 answer to Question No. 10, Mr. Dixon would have been
13 perfectly aware of roads and landings, reserves,
14 inoperable areas - indeed all of these things are
15 talked about in his paper - and that it was his view
16 that there was a realistic possibility that another,
17 another 22 per cent of the area cut would be
18 permanently lost to production.

19 And, in my submission, a refusal on the
20 part of the proponent to provide the run, based on
21 assumptions that are contained and within the area of
22 its own evidence is inappropriate and unreasonable and,
23 in my submission, should result in this Board making an
24 order requiring those runs.

25 And, as I have already outlined, we would

1 like to do that after a modest additional opportunity
2 to ensure that we are not inconsistent in our
3 assumptions even though this panel may well not agree
4 with the assumptions.

5 THE CHAIRMAN: Well, before we just deal
6 with the substance of your motion for this order, Mr.
7 Campbell, even if you do the runs using those numbers,
8 does that prove in any definitive way what Mr. Dixon
9 considered back in 1980?

10 In other words, if you utilize the
11 numbers that you want utilized, supposing that
12 agreement can be made between you and the Ministry on
13 the assumptions that should go into a model, does that
14 necessarily show that Mr. Dixon in 1980 when he wrote
15 that article took into account the other reductions to
16 the land base that --

17 MR. CAMPBELL: Well, I think that is sort
18 of --

19 THE CHAIRMAN: I mean, I do not think we
20 will ever find that out for sure since Mr. Dixon is not
21 around to confirm or deny what he assumed at the time.

22 MR. CAMPBELL: Well, I am prepared to
23 have the paper speak for itself obviously on that
24 matter.

25 But what I am suggesting is that on the

1 simple matter of areas cut that because they are cut
2 are lost to production, not for any of these other
3 reasons, where -- unless the panel is saying they think
4 the numbers that they have put in are ridiculous - they
5 may well be conservative estimates, but they are their
6 estimates for those particular classifications. Over
7 and above that, we have clear evidence of a range of
8 possible values for areas permanently lost to
9 production as a result of cutting.

10 I think it is an entirely appropriate
11 interrogatory to say: All right, you may choose the
12 low end of that range, I would like to see -- because
13 we are involved in a planning exercise, I don't intend
14 to use it as a forecast, I would like to see
15 directionally and with some idea or sense of order of
16 magnitude what the model shows when you run it at the
17 other end of the range.

18 And, in my submission, this evidence
19 having been brought before you by the proponent, it is
20 an entirely reasonable request and one which the Board
21 ought to order with respect to both Question 9 and
22 Question 10.

23 THE CHAIRMAN: Is there any difficulty in
24 running the model using these types of assumptions? I
25 mean, is it a difficult chore to run the model? What

1 is involved with running the model, Dr. Osborn?

2 DR. OSBORN: No, sir, it is not a very
3 difficult chore in terms of running the model.

4 However, what it requires is answers to
5 16 questions for every five-year period the model is
6 run and without -- in fact, Mr. Campbell offered to
7 make all those assumptions available, I am glad he
8 offered because without them I can't run the model. I
9 need those assumptions before I can run the model and I
10 need them from the person running the analysis.

11 So without those being given to whoever
12 is running it the model cannot be run, it requires
13 those input data.

14 MR. CAMPBELL: We are quite willing to
15 have a small group of people sit down and go through
16 the inputs that are required. I don't view that as
17 particularly onerous because in most cases we will be
18 quite content -- we have picked the specified
19 scenarios, in most cases we will be quite content with
20 the assumptions that are already there, if I
21 anticipate.

22 What we will do is ask for this
23 additional factor at the other end of the range be put
24 in so that we can see the effect of it.

25 THE CHAIRMAN: Mr. Freidin, do you have

1 any objections to the Board ordering this?

2 MR. FREIDIN: If I could just -- I will
3 be allowing on the evidence of the Ministry.

4 THE CHAIRMAN: Mr. Gordon?

5 MR. GORDON: I agree that it can be done,
6 I am still not sure what we can gain.

7 What I think we have to recognize is that
8 Mr. Dixon, as far as I can understand, had this
9 category that was non-treatable equals 22 per cent of
10 the area that is harvested, and what he meant by
11 non-treatable was that you couldn't carry out an
12 artificial treatment, you couldn't do site preparation.

13 Well, in actual fact, we have handled
14 that to some extent in the model in that we have
15 identified the number of hectares that we feel we can
16 treat and then those areas that Mr. Dixon may have
17 called non-treatable, we don't show them in the model
18 that we do an artificial regeneration treatment, we put
19 them on the yield curve that is the lowest and they
20 grow very slowly.

21 So to a large extent, although in another
22 way we have taken care of that...

23 MR. CAMPBELL: Well, Mr. Chairman --

24 MR. GORDON: It isn't as simple as it may
25 look, because there are all sorts of things interacting

1 here.

2 MR. CAMPBELL: Mr. Chairman, with
3 respect, I think what we are getting into is an
4 argument about the interpretation of results and there
5 is a time and place for that but, with respect, this is
6 not it.

7 THE CHAIRMAN: Okay. If Mr. Campbell
8 wishes to sit down, Mr. Freidin, with your people and
9 his experts, I assume, or his advisors to try and
10 arrive at a set of input data that could go into the
11 model, then the Board I do not think sees much
12 objection in asking the Ministry to run the model.

13 The results of that model will be for the
14 Board to decide in terms of what weight it wishes to
15 place on it and, of course, the parties will be free to
16 submit argument on what those results mean.

17 MR. FREIDIN: Mr. Chairman, if that
18 process is followed, could we also include in the order
19 that the Ministry of the Environment advise the
20 Ministry of Natural Resources the basis upon which they
21 are making the assumptions which they are asking to be
22 input into the model and their belief as to the purpose
23 which can be served by changing the input into the
24 model in the way that it is finally done, just so we
25 know why we are doing it and where the information or

1 where the numbers are coming from.

2 MR. CAMPBELL: Mr. Chairman, I think I
3 have made it clear why we want it done we want to see
4 what, in a policy sense --

5 THE CHAIRMAN: Well, you want to see what
6 the upper range of the scale may or may not be.

7 MR. CAMPBELL: That's right.

8 THE CHAIRMAN: I think that is your
9 stated purpose. But by the same token, is it not fair
10 that the Ministry, in order to be able to respond to
11 what may show from the model as being the upper range,
12 whether or not in their opinion that result is
13 credible?

14 MR. CAMPBELL: Well, I am quite sure they
15 will have a view on that matter and they are fully
16 entitled to express it.

17 THE CHAIRMAN: But they may not be able
18 to express that kind of view, Mr. Campbell, unless they
19 know from where the data which is the input is coming
20 from.

21 MR. CAMPBELL: Well --

22 THE CHAIRMAN: Or the assumptions, or
23 upon what the assumptions are based that are going into
24 the model.

25 MR. CAMPBELL: With respect, Mr.

1 Chairman, most of the assumptions I think are going to
2 come straight out of various documents that are in the
3 evidence already--

4 THE CHAIRMAN: Well, I think that is all
5 they want to know.

6 MR. CAMPBELL: --with which these people
7 may or may not agree. But whether or not that is the
8 case, I am not asking that the Ministry take
9 responsibility for the assumptions or be bound by them
10 in any way.

11 In my submission -- well, let me back up.
12 I don't want to get in the position where the way Mr.
13 Freidin interprets the order is that only if the
14 Ministry is satisfied both as to the reasonableness of
15 the assumptions and input...

16 THE CHAIRMAN: No, that is for them to
17 argue at a different time. All they want to know
18 factually is on what basis are those assumptions made.
19 At least that is the way I understand Mr. Freidin's
20 request.

21 MR. CAMPBELL: And it may be that in some
22 of those cases the basis is simply because we think our
23 sense of the evidence is that that is a reasonable
24 number to use.

25 MR. FREIDIN: No, no.

1 THE CHAIRMAN: Well, Mr. Freidin, he may
2 use that as the basis and you may disagree entirely and
3 your witnesses, at the appropriate time, can say that
4 we don't agree with that basis, we think it is a
5 ridiculous number.

6 MR. FREIDIN: All right. All I am saying
7 is that if in fact Mr. Campbell's client believes that
8 it has a reasonable basis upon which assumptions are
9 made and inputs should be changed, then it really will
10 serve no one's interest if the first time that the
11 proponent hears the basis, the reason, other than just
12 saying we think we have got some information, it will
13 do no one any benefit including the Board to hear about
14 that somehow for the first time in cross-examination of
15 further witnesses or perhaps over a year from now when
16 Mr. Campbell puts in his case.

17 And so...

18 MR. CAMPBELL: Mr. Chairman, with
19 respect, I may come to a conclusion that the weight of
20 the evidence appears at this stage of the hearing to
21 support plugging in a number of "x" and I may have a
22 discussion with the Ministry of Natural Resources'
23 people as to how I arrive at that conclusion and they
24 may totally reject it, they may think it is totally
25 ridiculous.

1 In my submission that is a matter for
2 argument, it is not a matter which should affect
3 whether the one goes or not.

4 THE CHAIRMAN: No, I think in order to
5 shorten this, I think it is reasonable that the
6 Ministry be requested to conduct a computer run using
7 the OWOSFOP model using data, input data supplied by
8 Mr. Campbell who, at the same time, supplies the
9 factual basis from where that data comes and if it is
10 just a number that they think is reasonable based on
11 the weight of the evidence to date, then they can so
12 state it in those terms.

13 The model is then run, a result is
14 obtained and the differences in opinion over the
15 results can be argued out at a later time.

16 MR. CAMPBELL: That is certainly
17 satisfactory.

18 MR. FREIDIN: Can I consult with my
19 client for a moment, Dr. Osborn.

20 THE CHAIRMAN: Yes.

21 ---Discussion off the record

22 MR. CAMPBELL: Mr. Chairman -- oh, I will
23 wait.

24 MR. FREIDIN: Fine.

25 THE CHAIRMAN: When is this going to take

1 place, Mr. Campbell?

2 MR. CAMPBELL: I have no idea. I have no
3 particular rush on this, Mr. Chairman. I don't believe
4 it is something that is urgently required in this
5 proceeding.

6 MR. FREIDIN: Music to my ears, Mr.
7 Campbell.

8 THE CHAIRMAN: Okay. We will leave it
9 open, at some point before the hearing winds up we will
10 probably hear whether or not it has been done.

11 MR. CAMPBELL: Well, Mr. Chairman, I take
12 it the order encompasses both Question 9 and 10 of my
13 interrogatories which covers a slight change in
14 assumptions. Again, I don't want to be met with: The
15 order only said one...

16 DR. OSBORN: Yes, sir.

17 THE CHAIRMAN: Any problem with that, Dr.
18 Osborn?

19 DR. OSBORN: No, sir.

20 THE CHAIRMAN: Very well. It will cover
21 9 and 10 of your interrogatories.

22 MR. CAMPBELL: Thank you, Mr. Chairman.

23 I spoke to Mr. Freidin about this last
24 week and our preferred way to do it is that again
25 Question 9 and 10 have some assumptions based on our

1 particular view of the matter at this time.

2 There has been a lot of water under the
3 bridge since then and we may adjust those slightly and
4 I take it that won't be a problem with Mr. Freidin
5 either.

6 Mr. Chairman, I think I can finish fairly
7 quickly. Mr. Tuer, I notice, has departed, so if the
8 Board is prepared to sit for a bit I would like to
9 finish.

10 THE CHAIRMAN: Well, the only problem
11 with that is is that somebody is taking over for Mr.
12 Tuer in the morning - I believe Mr. Cosman is coming up
13 in the morning - and I think in fairness to Mr. Tuer,
14 we indicated that we would quit at five and he was
15 assuming that his colleague would take over in the
16 morning.

17 So I do not think it is fair to go in his
18 absence. So I think we should adjourn for today.

19 MR. FREIDIN: Can I just raise one matter
20 that I would like to bring to the Board's attention.

21 I spoke to Mr. Hunter earlier this week.
22 He has advised me that he has been called on a trial
23 which begins on September the 6th and he believes that
24 if it doesn't settle it will tie him up for the 6th and
25 7th, and he indicated to me that it is not the first

1 time that he has been called and he just doesn't feel
2 he can get out of that.

3 I was discussing with him what other ways
4 we could accommodate him by leading evidence in a
5 certain order and also cross-examining in a certain
6 area, but based on the way things are proceeding, it
7 doesn't really look like we will be able to get any
8 evidence in next week on Panel No. 6. So that's going
9 to give rise to the problem that if we are ready to go
10 on the 6 on September the 6th or 7th, Mr. Hunter won't
11 be here.

12 I will speak to him again and just see
13 what we wants to do in that situation, but I just
14 wanted to indicate that there is a possible scheduling
15 problem.

16 THE CHAIRMAN: I believe I indicated to
17 you at the lunch break that it appears that the time
18 limitations required for the filing of interrogatories
19 and responses thereto would not allow Panel 6 to be
20 dealt with prior to September 6th.

21 In other words, you cannot start that
22 panel until that date in any event.

23 MR. FREIDIN: All right.

24 MR. CHAIRMAN: And I take it that it is
25 going to take some time for you to put your case in in

1 direct with Panel 6.

2 MR. FREIDIN: I don't think it will take
3 very much time at all.

4 THE CHAIRMAN: Well, will it take more
5 than two or three days?

6 MR. FREIDIN: It will take more like one
7 day.

8 THE CHAIRMAN: Oh. Then it may be a
9 problem for Mr. Hunter.

10 MR. FREIDIN: I will speak to Mr. Hunter.
11 I just wanted to raise that matter. In terms of any
12 downtime next week, like Wednesday or something, we are
13 attempting to make arrangements for a site visit for
14 the Board.

15 THE CHAIRMAN: The suggestion, ladies and
16 gentlemen, was that if we cannot start Panel 6 until
17 September the 6th, next Thursday will be motion day,
18 September the 1st, for all these motions.

19 We may end up in reality finishing Panel
20 5 by Tuesday and that would leave us with nothing to do
21 on Wednesday but having to return here for all the
22 motions on Thursday, and it was my suggestion that
23 perhaps a local site visit might be arranged for the
24 Board on short notice on the Wednesday so that we could
25 have something useful to do on the Wednesday, such as a

1 mill or some area that is right around here, or
2 something like that, but we really will not know until
3 Tuesday whether we are up to that stage.

4 So make what arrangements you can. If
5 you cannot make any arrangements, then I suggest we
6 will just all stay up here because I do not think we
7 can advance the motions to the day before because of
8 the notices that have gone out.

9 MR. FREIDIN: And if we can't arrange
10 that, Mr. Chairman, I will refer on the transcripts to
11 the elusive batting average that we were talking about
12 that may be an appropriate day to engage in a different
13 activity.

14 THE CHAIRMAN: Well, there are a number
15 of activities, we may all drive to Deluth or something,
16 who knows.

17 MR. CAMPBELL: Or maybe you could arrange
18 to win the lottery if we all bought tickets - to go
19 back in the preliminaries - for the weekend in
20 Minneapolis and we could use that up.

21 THE CHAIRMAN: Whatever.

22 MR. CAMPBELL: Mr. Chairman, I will leave
23 this for Mr. Freidin to think about for tomorrow.

24 Part (b) of my request with respect to
25 the OWOSFOP which is not covered in the interrogatory

1 but which I would ask him to think about before
2 morning, is whether it will be possible for a copy of
3 the software containing the OWOSFOP model and the data
4 base to be provided.

5 We have the manual and a couple of runs
6 done by the Ministry of Natural Resources. We would
7 like the opportunity to explore the model which I am
8 sure, Dr. Osborn would agree, sometimes until you play
9 with these things it will be a little hard to figure
10 out how they work.

11 DR. OSBORN: Question, Mr. Chairman,
12 which model?

13 MR. CAMPBELL: We are talking about the
14 policy model.

15 DR. OSBORN: That wasn't the one for
16 which you have the manual.

17 MR. CAMPBELL: I think it is touched on
18 in there.

19 DR. OSBORN: The manual you have been
20 provided with is the manual for the MAD version of
21 OWOSFOP as you asked for.

22 MR. CAMPBELL: It has nothing in there
23 about the policy?

24 DR. OSBORN: The policy model is a
25 different animal with a different set of assumptions

1 and a different set of operations, although some of the
2 software is similar.

3 MR. CAMPBELL: Well, obviously then I
4 should have just asked for both. I just stated that so
5 Mr. Freidin can think about it.

6 MR. FREIDIN: The software and the
7 database for both OWOSFOPs?

8 MR. CAMPBELL: Yes. The database for the
9 MAD one is going to be a little difficult because, as I
10 understand, it has been in the local areas. We may
11 just have to pick a management unit for that one.

12 THE CHAIRMAN: Well, Mr. Freidin, why
13 don't you discuss it with Dr. Osborn as to what is
14 possible and what is not possible and then we will deal
15 with it at a later date.

16 MR. FREIDIN: Very well.

17 THE CHAIRMAN: Okay. We will adjourn
18 until 9:30 tomorrow morning.

19 ---Whereupon the hearing adjourned at 5:15 p.m.,
20 to be reconvened on Thursday, August 25th, 1988,
commencing at 9:30 a.m.

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E R R - A T A

Volume XXXIII

Page 5960, please insert:

---EXHIBIT NO. 178: Excerpts from MNR Implementation
Strategies, 1987 Figure 4: Zoning
Management Guide for Areas of
Natural and Scientific Interest.

